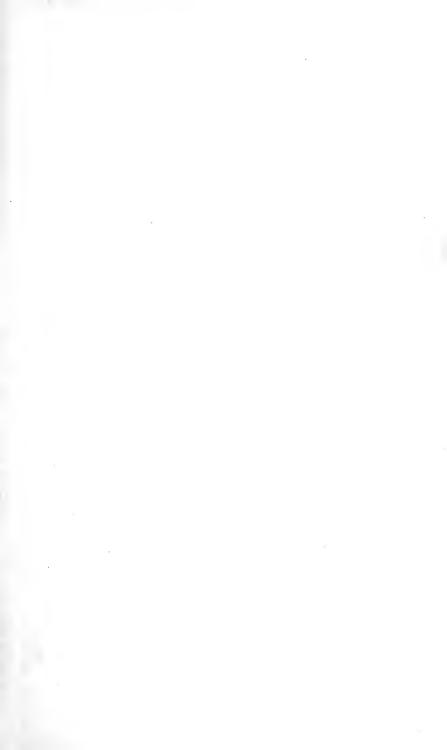


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THE

PRONUNCIATION OF GREEK

WITH

SUGGESTIONS FOR A REFORM

IN

TEACHING THAT LANGUAGE

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"Est ridiculum, ad ca, qua habemus, nihil dicere; quarere, qua habere non possumus; et de hominum memoria tacere, litterarum memoriam flagitare."—CICERO, Pro Arch. iv. 8.

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THE

PRONUNCIATION OF GREEK.

THE rise of the Greek nation from its long bondage, and its rapid progress in general development, in political importance, in commerce and in education during the last fifty years, reveals an inherent tenacity and vigour of life which has scarcely ever been witnessed in any other people. The rapid means of communication has also brought Greece within easy access of Western Europe, and the once distant country is readily visited by numerous travellers, either for mere pleasure, or to study the relics which still attest the former supremacy of Greece in art and architecture. This new intercourse with a nation whose literature has had so much influence on the world at large, and is the fons et origo of so much of its intellectual development, has led many scholars, especially in Germany and Holland, to reconsider the question of the proper pronunciation of the language, and to study the language as at present spoken and written in Greece itself. The scholars of England can hardly be said to have fairly turned their attention to this subject. Until very lately modern Greece, its language and literature, found but little favour in the ranks of our scholars, and even to the present day there exists a remarkable ignorance among us of the progress,

improvement and multiplicity of the works which are constantly issuing from the press in Greece.

There is in England a general indifference to any modern Greek literary production, or more generally complete ignorance of the existing literature—the prevailing idea being that modern Greek is a very different language from ancient Greek, and that the present language is so debased that the ancient can hardly be recognized in it. The general use of the expression "modern Greek" has led to a deepening of this opinion, and very few of those who have spent the best years of their lives in the study of Greek at the public schools and universities have any idea of the language now spoken in the land where the great writers of Greek antiquity wrote their immortal productions; and they would be surprised if they were told that the lexicon of Liddell and Scott which they have so often used is the best for the language now spoken, some idioms and provincialisms excepted. But who can tell how many idioms and provincialisms of the best times of Attic literature are not contained in any lexicon, and perhaps are only to be found in the traditional deposits of the nation and expressed by the people now as they were thousands of years ago? Professor Blackie, who is an exception to the general rule in this country, writes in the Hellas (the magazine of the Hellenic Society in Amsterdam) :- "I am constantly meeting with intelligent persons who labour under the impression that the language of Plato and S. Chrysostom is a dead language, as much as Latin and Hebrew. In an age when Greek newspapers and Greek books on a great variety of subjects are published every day, the existence of such a notion among intelligent persons is a sad sign of that 'insular ignorance' with which Professor Seeley reproached the inhabitants of this tight little island;

and it is a notion pardonable enough in the general public, as professional scholars unfortunately have done not a little to give currency to so gross a misconception. For professors and schoolmasters, and teachers of the classical languages generally, partly from their habit of devolving their living function as teachers of language on dead books, and partly from their barbarous habit of murdering the classical tongue by Latin accentuation and English vocalization, have taken up a position that, so far as they and their disciples are concerned, makes the living language of Greece practically dead; and so complete is this deadness, that when our young Greeklings, after it may be ten years' study of Greek in Eton or Oxford, make a tour to the land where the language is spoken, they find that scarce a sentence in their well-crammed Hellenism is understood, and forthwith, instead of blaming themselves and their teachers for their barbarous treatment of the language of the Muses, they denounce the spoken language as barbarous." This represents the prevailing opinion among us, which we trust will soon be one of the past. The term modern should no more be used as an adjective before Greek to represent the Greek of to-day, than before English or French to distinguish those languages from what they were in the fifteenth or sixteenth century. German of the present day differs more from the language of Luther than the Greek of to-day from that of classic times. No romance language approaches so near Latin as the Greek of to-day to that of Plato. The different Latin dialects, which are now classed as languages in Europe, have deviated in so many particulars from the parent tongue that the Latin scholar has to make a separate study to acquire any one of them. The Greek scholar has not this difficulty, if he wishes to read the writings of modern Greeks. He will find when he begins to study the

modern literature such a surprising resemblance as to excite his astonishment, and to refute the ideas he may have had as to the language being so utterly changed as to be unintelligible to the classical scholar. On the contrary, he will make the agreeable discovery that at first sight he can understand as easily as classical Greek most of the well written books, and with a few weeks' study he will be able to read the newspapers and periodicals. The popular language, as in every country, will offer more variety of dialectic form, and not be so readily acquired by the classical student, but is a most interesting philological study. The pronunciation is the principal difficulty which the Western scholar finds on his arrival in Greece, and it is this which stands as a wall of separation between the scholars of the West and those of Greece, and which hangs the shroud of death around the ancient classic tongue, and brands the Attic wit of the present day as barbaric to those who have contented themselves with pronouncing Greek, a foreign tongue, in the same manner as their own language.

This curious question of how a language should be pronounced—a language which is living, which has always been spoken and has had a continuous literature even in times when the national life seemed almost extinct, is the one we propose to examine briefly in the following pages:—

There can be no doubt but that in a language so widely spoken as the Greek was about the time of the Christian era there must have existed many dialectic forms and varieties of pronunciation. It is not long since persons from the different counties of England could be readily recognized by their pronunciation; some counties had more marked differences of dialect than others, and still retain, especially among the lower classes, many of these peculiarities of pronunciation, and also

many words and expressions peculiar to their own counties; the same may be said of most European countries. The standard of a language in form and pronunciation must be sought for among the educated and those residing in or near the centres of intellectual development, which in most cases is the capital town of the country. We may fairly assume that after the fall of Greece proper, and the rise of the Byzantine power, Constantinople with its statesmen, orators and writers, and Alexandria with its grammarians and schools of philosophy, would be centres of learning in which the Greek language was spoken and written with comparative purity. The writings of the Alexandrian grammarians attest their anxiety for the preservation of the purity of their language and the correctness of its pronunciation. We cannot suppose that Chrysostom would have gained the epithet by which he is now known had he not had a pure pronunciation and a flowing delivery.

The language continued to be spoken, studied, and written with care in Constantinople until the fall of the Byzantine empire and the capture of the city by the Turks.

After the capture of Constantinople many learned Greeks left the city and migrated into western Europe and gave an impulse to the then awakening spirit for letters. Among these men may be noted the famous Theodorus Gaza, who composed a grammar for the use of those who were studying Greek, the first two parts of which were translated by Erasmus. No one at that time thought that the writings of the ancients should be read with any other pronunciation than that which these men brought with them. Greek was then pronounced with its own living pronunciation and learned as a living language. Wherever these refugees from Constantinople taught their language they taught their own pronunciation and their pupils taught it to

others, and so they read and spoke the language as a living one. It seems to be a *pctitio principii* to say that this traditional pronunciation of these men was a wrong one, and yet this is the argument or statement of the opponents of the present pronunciation—the followers of the Erasmian system.

It was not till 1528 A.D. that the learned world was surprised by the theory of another pronunciation for Greek than the generally received and traditional one, when Desiderius Erasmus of Rotterdam made known his discovery in a treatise entitled "De recta latini græcique sermonis pronunciatione dialogus." The dialogue is supposed to take place between a clever Bear and a learned Lion. It is more a witty than a serious production, and which of these two Erasmus intended it to be is now difficult to assert. The clever Bear undertakes to prove to the Lion that the pronunciation in use among the Greeks of their own language is quite wrong, and that they do not know how to pronounce it, that the right pronunciation of ancient Greek had been lost in the course of time and the various transitions through which the nation had passed, and therefore it was necessary to reconstruct the pronunciation by giving to the vowels and consonants the sounds which he supposed they originally had, and suggested that the ancient Greeks had similar sounds to those in the Dutch language with a slight admixture of French and German sounds.

That Erasmus himself ever adopted the pronunciation recommended in the famous dialogue seems to be very improbable. He appears to have used the traditional pronunciation himself, and to have taught it to his students, and he begged his Greek friend Lascaris to find him a Greek as teacher, that the children might learn to pronounce properly. "Conducendus aliquis natione Græcus, licet alioquin parum eruditus, propter nativum

illum ac patrium sonum, ut castigaté græca sonari discantur." And in another letter to Lascaris he says: "Meum consilium semper fuit, ut adscisceretur Græcus natus unde germanam græci sermonis pronuntiationem imbibant autores."

It seems almost incredible that, after such strongly expressed opinions in favour of the living pronunciation of Greek, Erasmus should have suddenly abandoned it for one totally different and purely artificial, which in a jocular moment he had propounded in his famous dialogue. If he did—for this point is somewhat uncertain—he does not appear to have had an immediate wide-spread influence even in his own country. In fact, the so-called Erasmian pronunciation seems to be a posthumous child, born some fifty years after the death of its reputed father. The grammatical bibliography of the latter half of the sixteenth century shows this clearly, since grammars continued to be published in which the traditional pronunciation was adopted; and these books were used in the schools of Belgium, Holland, and Germany.

We may mention among those who continued to use the traditional pronunciation Theophilus Golius, who in 1572 published his instructions in the Greek language, for the use of the Gymnasium of Strasburg.

In the same year (1572) there issued from the press of Christopher Plantin, Antwerp, a Lexicon Gracum et institutiones lingua Graca. In 1530 Nicolas Clenardus published his Institutiones in linguam Gracam at Louvain.

Afterwards he published, in 1576, at Antwerp, from the press of Plantin, his Absolutissinæ institutiones in linguam Græcam. In none of these is there any mention of a new pronunciation, but the rules given are according to the traditional one.

This grammar of Clenardus was in use until 1625, also in the

schools of Holland, as we learn from the time-table of the schools for the year 1625, approved by the Council of Holland: "Diebus Lunæ, Martis, Jovis et Veneris hora IV. Rudimenta e grammatica Græca Clenardi recensita nempe doctrina de litteris, accentum notis declinationibus atque comparationibus."

In the following year (1626) however, we find that the Erasmian pronunciation was introduced into the schools of Holland by Gerard Voss, and his book ordered to be used in the schools: 'Gerardi Jo. Vossii linguæ Græcæ rudimenta, quibus decreto ordinum Hollandiæ . . . in usum scholarum ejusdem Provinciæ."

In this book Voss explains the pronunciation according to the so-called Erasmian, and warns the pupils against that in use, that is the traditional one, and that they must not pronounce the vowels and diphthongs as they have been accustomed to, or according to the general practice.

But this system of Voss does not appear to have been introduced into the schools of Belgium, until later at least, for there and in many schools of Germany the old pronunciation continued to be used and was taught in the grammar of Jacob Gretser, professor at the University of Ingoldstadt—Rudimenta lingua graca cx primo libro institutionum Jacobi Gretseri. Leodii. J. Ouwerk. 1637.

Thus we learn that for many years after Erasmus the old pronunciation was taught in Belgium, Holland, and Germany, and that the new pronunciation, introduced by Voss into his grammar, was not authorized to be used in Holland until ninety years after the death of Erasmus, its reputed originator.

The influence of the Erasmian theory however, from the want of proper teachers, i.e. Greeks for the pronunciation, and the comparative neglect into which the study of Greek fell,

gradually caused the traditional pronunciation to disappear from the schools; and, in the different countries of Europe, Greek was pronounced according to the respective sounds of the language of the country in which it was taught, so that no Greek student of one country understood the Greek student of another, and a Greek could not understand any one of them. This confusion exists unto the present day, but will, we hope, by degrees disappear as scholars begin to understand more fully the present state of the Greek language and its literature, which is increasing daily in quantity and quality.

Since the end of the sixteenth century until lately, the question of the pronunciation of Greek has remained in abeyance. In England very little interest has been felt with respect to it, and therefore we shall be obliged to refer more especially to Continental writers. Professor Blackie has for some years been the champion of the traditional pronunciation, but he has found little response in these islands. Rangabé, the veteran scholar of Greece, published his pamphlet, Die Aussprache des Griechischen in 1861, and a second edition in 1888. Dr. Engel, of Berlin, published an interesting volume in 1887, Die Aussprache des Griechischen. These are the principal defendants of the traditional pronunciation. There has just appeared at Athens a work by Th. Demetrakopoulos, which we have not yet seen, but which appears from a review in the "Έστία" to treat this question very exhaustively.

In 1869 and 1870 Professor Blass, of Kiel, came forward as defendant of the Erasmian views, and last year a third and enlarged edition of his work appeared. This, coming at a time when the question of Greek pronunciation is beginning to be reconsidered, has attracted some attention. Professor

Zacher also published a pamphlet last year in support of the same views. Professor Blass's book is perhaps the most important defence of the Erasmian theory that has appeared since the sixteenth century. He examines carefully all the vowel sounds and diphthongs, and with great critical acumen supports his views from various authors and inscriptions, still for the most part he seems to fail to prove that the Greeks ever pronounced according to the Erasmian system.

When the Erasmians change in the pronunciation nearly all that has been received as traditional, they must not only endeavour to prove in detail those things which have not been disputed by those who favour the traditional pronunciation, and questions which were admitted before the time of Erasmus, but they must prove that the bold so-called restorations which they introduce, did really exist in the ancient pronunciation. As yet, however, they have not succeeded in proving this in any of their writings that have appeared from the time of Erasmus to the present day. They cannot show conclusively that the traditional pronunciation is wrong and their own theory right, and that for the simple reason that the former is the true one, handed down from generation to generation and supported by the Greek grammarians, the immediate descendants of the ancient Greeks, and thus resting on an historical basis, whilst the most important arguments of the Erasmians are generally based on mere conjectures, and not on clear and indisputable proofs. They have only invented a barbarous-sounding pronunciation which no such refined and æsthetic nation as the Greek could ever have used.

That the present pronunciation among the Greeks is in every respect the same as it was in the days of Pericles

the Reuchlinians do not presume to assert, but they admit that possibly the long and short vowels were distinguished, and that the sounds of η , ν , and the diphthong $o\iota$ differed in some degree from that of ι . They are, however, of opinion that the present pronunciation is identical with that in use at the beginning of the Christian era, and that of Plutarch and the Evangelists.

In the case of all languages the living traditional pronunciation is accepted as the one to be adopted, and this is what we ask for the Greek language, which more than any other European language has retained a pronunciation that can be traced back at least about two thousand years. The proofs of this are to be found in inscriptions, and in transcriptions from Greek into Latin, and Latin into Greek, and in the remarks of the grammarians; these last, however, must be used with caution.

The chief controversy between the Erasmians and Reuchlinians turns on the pronunciation of the diphthongs, except ov, and a few of the vowels and consonants. The majority of the vowels and consonants are pronounced in the same manner by both parties, a, ϵ , ι , o, ov (the latter pronounced as oo in boot); γ , κ , λ , μ , ν , ξ , σ , ρ , ϕ , τ , χ , ψ are generally admitted to have retained their ancient sounds in the modern Greek pronunciation, the same is admitted with respect to δ , θ , σ , and $\nu\tau$ by all Erasmians who have studied the question scientifically. The diversity of opinion is chiefly confined to the letters η , ν , ω ; $a\iota$, $\epsilon\iota$, $o\iota$, av, ϵv , $v\iota$; β , ξ and $\mu\pi$.

In consequence of the different pronunciation of the letter η the parties were named Itacists and Etacists. The former term was given to the Reuchlinians, who pronounce the η as the Greek iota or the English e in "be;" the latter to the

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Erasmians, who pronounce the η as ey in they, or as the German e. The sound of η however does not indicate the chief difference, as most Reuchlinians are willing to concede that in the classical period there may have been a slight distinction between the sound of $\underline{\iota}$ and η . The real crux is the pronunciation of the diphthongs, which affects the sound of the language much more than that of the single letter η .

The German pronunciation of Greek is the only one which resembles the Erasmian, and therefore we shall refer principally to this in the following pages. The English pronunciation is admitted not to be the correct one by all scholars, and has no claim to be called Erasmian.

The following arrangement of the letters will show clearly the divergencies of the two systems.

The letters a, ϵ , ι , κ , λ , μ , ν , ξ , o, π , ρ , τ , ϕ , χ , $\dot{\psi}$, and the diphthong $o\nu$, are pronounced alike by both parties. The other letters as follows:—

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RECCHLINIAN.
             ERASMIAN.
                                          = w in ewig; v in ever.
\beta = German and English b
                                          = German j or English y before \epsilon, \eta, \iota, v;
\gamma = German and English g
                                                 before other vowels a sound be-
                                                 tween q and h—German g in tag.
                                           = English th in then.
 \delta = German \text{ or English } d
                                           = English z in zebra.
 \zeta = \operatorname{German} z in zeit
\eta = \operatorname{German} e = \operatorname{English} ay in day = German i, or English e in be.
                                           = English th in thin.
 \theta = German \text{ or English } t
\sigma = German soft s if initial; if
                                           = hard s; before \beta, \gamma, \delta, \mu, soft s.
          medial or final, hard s
                                           = German i, or English e in be.
 v = German \ddot{u}, or French u
                                          = as o in hope, but very little difference
\omega = \log \bar{o}
                                                 between it and o.
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= German e; English ey in day.

= German i : English c in be.

 $ai = German \, ai \, in \, kaiser \, ; \, English$

i in tiger

 $\alpha =$ the same a · ai

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ERASMIAN. REUCHLINIAN.

ou = German \ eu \ in \ heu \ ; English

oy \ in \ boy

u = German \ \ddot{u} \ ; French \ u

u = German \ \ddot{u} \ ; French \ u

u = German \ au \ in \ Fran \ ; English \ u

u = German \ au \ in \ Fran \ ; English \ u

u = German \ eu \ in \ heu \ ; English \ u

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One of the principal objections brought forward by the Erasmians, or quasi-Erasmians, who use the pronunciation of their own language for Greek is the frequency of the iota sound (expressed as our e in "be") in the traditional Greek pronunciation—the Iotacism or Itacism. This repetition of the same vowel sound for different vowels or combination of vowels is not peculiar to Greek, but may be found in most languages. The Greek language, far from exceeding all others in the repetition of the same sound when three vowels and three diphthongs are pronounced as iota, has been shown to have fewer ē sounds than Latin when pronounced by Italians—and than other languages have other predominating vowel sounds. Rangabè and Dr. Engel have carefully counted these sounds, and furnished us with interesting results, showing that the iota sound in the traditional pronunciation is not in excess of some other vowels in other languages.

In Cicero's First Oration against Catiline (ch. i.), and in Pro Milone (ch. i.), out of 1,115 vowels 311 are i sounds, or 27.8 per cent.

In the beginning of Sallust's *Catiline*, of 470 vowels 139 are *i* sounds—29.5 per cent.

In Cæsar's Bellum Civile (ch. xxi, and half of xxii.) 501 vowels—152 i sounds—303 per cent.

In Tacitus' Germania (chaps. vi. and vii.) 744 vowels—186 i sounds—25 per cent. Dr. Engel has counted and found:

In Cicero's *De Oratore*, book i. chaps. i. and ii., 1,239 vowels—347 *i* sounds—28 per cent.; book ii. chap. i., 888 vowels—233 *i* sounds—26·2 per cent.; book iii. chaps. i. and ii., 1,344 vowels—387 *i* sounds—28·7 per cent.

In Cæsar's Bellum Gall., book i. chaps. i. and ii., 765 vowels—223 i sounds—29·1 per cent.; book ii. chaps. i. and ii., 502 vowels—135 i sounds—26·8 per cent.

Even in Plautus, who so often employs u for i, in act i. of the *Trinumnus*, 1,170 vowels—304 i sounds—25.9 per cent.

The result of these calculations is that out of 8,738 vowels in Latin, 2,417 are i sounds, or 27.6 per cent.

Such words as the following show the frequency of the i sound—inimicitiis, inimicissimis, didicisti, dixisti, tristitiis, divitiis, and very many others.

Also such verses as-

- "Dic mihi, quid feci, nisi non sapienter amavi?"
- " Nec tu linigeram fieri quid possit ad Isim."
- " Proveniant medii sic mihi sæpe dies."
- " Quid tibi vis, mulier, nigris dignissima barris?"
- " Quid fles, Asterie, quem tibi candidi Primo restituent vere Favonii."
- " Quod si me lyricis vatibus inseris, sublimis feriam vertice sidera."
- " Sin aliter es, inimici atque irati tibi."

From ancient Greek read with the traditional pronunciation we get the following results: *i.e.* ι , η , (η) , $\epsilon\iota$, $o\iota$, v, $v\iota$, pronounced as our \bar{e} in "be" as follows:—

Xenophon Anabasis, book i. chap. i. §§ 1-8, 832 vowels—222 \bar{e} sounds—26·6 per cent.

Thucydides, *Peloponnesian War*, book i. chaps. i. and ii., and book ii. chap. liv., 1,152 vowels—303 ē sounds—26.9 per cent.

Plato's Apology of Socrates, i. and ii.; Phædo, i.; Sophist, i., 2,128 vowels—551 e sounds—25'8 per cent.

Demosthenes' De Pace (§§ 1-6), 722 vowels—175 \bar{e} sounds—24·2 per cent.

Lysias' Speech against Nicomachus (§§ 1-6), 817 vowels—216 ē sounds—26·4 per cent.

Lucian's *Somnium*, the first fifty-three lines, 1,007 vowels $-270 \bar{e}$ sounds-26.8 per cent.

Sophocles, Ajax, the first 100 lines, 1,210 vowels—317 \bar{e} sounds—26.4 per cent.

Æschylus, the *Persæ*, lines 353-432, 960 vowels—258 \bar{e} sounds—26·8 per cent.

The total result of the above countings shows that the \bar{e} sound occurs in ancient Greek, read according to the traditional pronunciation (so called modern Greek pronunciation) 2,312 times out of 8,791 vowels, or 26·2 per cent. Thus we may say that, whilst the e sound occurs 26 times, other vowels occur 74 times.

The following table may show the relative frequency of particular vowels more clearly:—

The frequency of the e sound in German 42.8 per cent.

", ", ", e ", French 36·3 ", ", ", Latin 27·6 ",

" " " " in Ancient Greek

with the traditional pronunciation 26.2 per cent.

Thus clearly showing that the redundancy of the iota sound pronounced as our e in be, is less than that of other vowel sounds in other languages, and therefore the objection so often and so thoughtlessly made as to the frequency of the e sound

loses its force as soon as it is investigated with a certain amount of accuracy.

Such words as $\tau \hat{\eta}_S$ $\vec{a}\lambda \eta \theta \eta \acute{t} \eta_S = t\bar{e}s$ $\vec{a}leth\bar{e}\dot{e}\bar{e}s$, $\tau \hat{\eta}_S$ $\dot{\nu}\gamma \iota e l \eta_S = t\bar{e}s$ $\bar{e}g\bar{e}\dot{e}\bar{e}s$ have been cited against the traditional pronunciation; these, however, happen to be forms of the Ionic dialect, but do these sound any better with the Erasmian or English pronunciation? There are in all languages some not very pleasing sounds, but the general cuphony of a language is not judged by its exceptions.

In English the same sound is frequently expressed by several signs as the e sound in the following words:—i (big, bitch); y (lynx); e (be); ea (beach); ee (bee, see); ei (ceiling); ey (key); ie (field); ex (Æneas); ex (Eubea); ex (biscuit).

In German the e sound is expressed by i, ie, ieh; in ihr, sie, fliehen.

These examples are sufficient to show, that the Greeks are by no means isolated in having several signs to express one sound and that the argument of the Erasmians against the traditional pronunciation of ι , ν , η , $\epsilon\iota$, ι , ι , ι , can have but little weight,

especially as we know they were pronounced as they are now before the Christian era.

Objections are also made to the harsh sounds in such words as εὔκολος=efkolos and εὔστρωτος = éfstrotos, and yet Erasmians do not complain of words like ἀστειεύομαι pronounced in German ástei-eúomai, English astī-uomī; or αἰτεῖται, German aiteitai, English ītītī; or οἱ εὐρρωστοι νίοἱ, German heu eurosteu üeu, English hoy urōstoy whyoy; εὐειδεῖς, German eueideis, English uīdīs. To those who speak Greek the Erasmian pronunciation of these and such words appears most harsh and unpleasant, whereas with the traditional pronunciation they flow easily and are euphonious.

The Erasmians assert that the ancient Greeks must have originally tried to represent the sounds of their language by the letters of their alphabet, and say that the simple and natural rule, "Write as you speak," is never transgressed without some good reason. In other words the primitive alphabet must have been phonetic. The Greeks however borrowed their alphabet from the Phænicians, and adapted it as well as possible to represent the sounds of their own language approximately; after some considerable time they added a few signs of their own to express some sounds more correctly, we may suppose.

But neither modern nor ancient alphabets appear to be phonetic but in a very limited sense. Two of the oldest we know are the Cretan and Cyprian, which are far from being phonetic, if being phonetic means having a separate sign for each separate sound.

The Cretan has eighteen letters and the Cyprian only fifteen, and consequently it is most likely that the same sign frequently represented different sounds.

The Cyprian alphabet does not distinguish the tenues, mediæ or aspiratæ, and has no spiritus asper. Besides the five vowel sounds a, c, i, o, y, there are only ten consonants, k, t, p, l, r, n, m, j, v, z, x, and yet with this paucity of signs it was able to express all that was necessary. It is a well-known fact that ancient alphabets are generally defective, and it is only in an advanced stage of civilization that alphabets are made more phonetic.

According to Pliny and Tacitus the Greek alphabet had originally only sixteen signs (instead of the later twenty-four), according to Aristotle eighteen; we may infer therefore that the alphabet was very far from being phonetic (and yet with this meagre orthography they gave to the world the *Prometheus* of Æschylus, the *Antigone* of Sophocles, and other monuments of literary labour which have remained unsurpassed.)

In the archonship of Eukleides 403 B.C., an addition was made to the Attic alphabet. The sigh H which had hitherto served to denote the spiritus asper, was employed to represent a long e sound, which implies a necessity for this; also e which had before been represented by e, and ω and ov which had both been represented by o. These additions were no doubt made on phonetic principles, and removed some of the existing deficiencies, but they were far from rendering the alphabet phonetic, that is, capable of expressing all the sounds in the language.

We may fairly, however, suppose that the historical orthography, for the most part, remained unchanged and in many cases opposed to strict phonetic laws, notwithstanding the introduction of these four new signs. There is in every country a strong conservative tendency to retain historical orthography; one generation writes as the former one has taught it to do, and does not stop to inquire whether the signs still correctly

express the sounds they are supposed to represent. If grammarians and etymologists were wanting in Attica, there were priests, statesmen, and jurists who would wish to abide by the historical orthography such as they saw in their archives and in inscriptions; in a state where so much reverence was paid to the due performance of religious rites, and the maintenance of old customs, there would exist a kind of superstitious dread against changing the time-honoured spelling which their fathers and forefathers had used and handed down to them.

The Greek of the fifth century was a modern language to the people then living, and they spelt their words as they saw former generations had done. They had their Homer and Hesiod, their Alcman and Simonides as their classical writers, and probably many contemporaneous writers now unknown, which would serve as standards of orthography, and the few additional letters which had gradually grown into use and supposed to have been generally accepted about 403 B.C. would not make much alteration.

The Erasmians, however, assert that the Greek pronunciation has changed in the course of time; many are satisfied with the mere assertion, "the ancient Greeks could never have spoken as they do now." But the Reuchlinians, or defenders of the traditional pronunciation, do not deny that the pronunciation may have changed from what it was originally; they wish however to find some definition or approximation of the limit of time. To speak of original pronunciation and ancient Greeks is very indefinite, and leads us into the unknown. "Est ridiculum, ad ea, quæ habemus, nihil dicere; quærere, quæ habere non possumus; et de hominum memoria tacere, litterarum memoriam flagitare."

We have not sufficient data by which we can decide as to the original pronunciation, whenever that may have been, nor to make clear what it was when the Greeks adopted the Phænician alphabet. For all practical purposes it is sufficient it we can obtain an approximate idea of what it was in the fourth and fifth century B.C.

The oldest extant documents are now thought to belong to the ninth century B.C., and it is generally believed that the Greeks adopted the Phænician alphabet in the ninth century B.C., if not earlier (v. Hicks' Manual of Greek Historical Inscriptions). Thus it is possible that by the fifth or fourth the pronunciation had changed, or settled down to some kind of uniformity. Of the original pronunciation of the language we cannot know anything definite, and it is a mistake to speak of the original pronunciation, as if it must necessarily have been dentical with that of the fourth and fifth centuries B.C., an error into which the defenders of the Erasmian pronunciation at times seem to fall.

The diphthongs may have been pronounced originally as diphthongs, but it does not follow that they were thus pronounced in the classical period; indeed Zacher, a staunch Erasmian, admits that they were fast becoming monophthongs at that time, and that the general tendency of the language was to change all diphthongs into monophthongs, thus implying that a change was going on, and that the pronunciation became, so to say, fixed in the fourth and fifth centuries B.C. We need not therefore trouble ourselves about the pronunciation anterior to this period, but limit our researches to the classical and post-classical times. We shall examine this in detail when we treat of the pronunciation of the letters and different vowel-sounds.

The Erasmians admit, that in the second century A.D. the pronunciation was the same as that used by the Greeks of today, with the exception perhaps of the letter η . Thus during seventeen centuries, and those most troubled and disturbed, the country invaded and ravaged by the Goths, plundered by the Normans, conquered by the Latins, Constantinople taken by the Turks, destroying the centre of Hellenic culture, and scattering its learned men over Western Europe, the rule of the Turks almost crushing out the nationality, the language retained its vitality and its pronunciation. During these long and dark ages the language might well have become changed and the pronunciation wholly altered by foreign influences, yet such is its wonderful tenacity and power, that the pronunciation does not seem to have suffered, but remains as it was in the second century A.D., and even the admixture of foreign words into the written language is very few in number.

We have a very curious and interesting memorial of the year 874 A.D., which shows that at that time, more than 1,000 years ago, not only the pronunciation was the same as to-day, but that even the same grammatical errors were in use. It is an inscription on a stone slab built into the wall of the little church of Orchomenos.

Παναγήα θεοτώκε σὺν το μονογενή σου ἰυῷ βοήθι τοῦ σου δούλου Λέωντος βασιληκοῦ Προτωσπαθαρίου κὲ ἐπὴ τοῦν οἰκηακῶν σὺν τῖ συνεύνω κὲ τῦς φιλτάτυς τέκνυς αὐτοῦ, τοῦ ἐκ πόθου καὶ πήστεος μεγίστις ἀνακτίσαντος τὸν σὸν ἄγιων ναὸν. ᾿Αμήν.

Here we have $\eta = \epsilon \iota$, $\eta = \iota$, $\nu = o \iota$, $o = \omega$ and vice versa, $\iota \nu = \nu \iota$, $\epsilon = a \iota$, and $\iota = \eta$; and even the genitive $\tau o \hat{\nu}$ $\delta o \hat{\nu} \lambda o \nu$ used instead of the dative exactly as it is among the uneducated of the present day.

If then the pronunciation has remained practically unchanged through sixteen or seventeen centuries, during which the country has undergone so many vicissitudes, why should we suppose it to have changed so immensely in the six or seven preceding centuries, that is, from the fourth or fifth centuries B.C. to the first or second A.D.? The Erasmians maintain that in the fifth century B.C. the diphthongs were still pronounced as broad diphthongs, whereas in the first and second century A.D. they admit they were pronounced as monophthongs. How is it possible, we naturally ask, that such a great change, one that alters the whole character of the sound of the language, should have taken place just in those six or seven centuries, when the country enjoyed comparative peace and prosperity, and the language reached its greatest development in the works of its most eminent writers, orators, philosophers, and poets?

It is possible, as we have admitted, that in the centuries preceding the fifth B.C. the pronunciation may have changed considerably, when the nation was still in a rude and uncivilized state. But even before the fifth century B.C. the Rhapsodists by reciting the works of Homer, Hesiod, and other poets, must have assisted to keep the pronunciation to a great extent uniform, even in the Greek colonies and settlements far from the mother country.

How are we to account for the great change between the fifth and fourth centuries B.C. and the first or second A.D., which the Erasmians assert to have taken place? A change so great, as to entirely alter its sound and make it appear like another language, and that not a kindred one. So much so that a Greek of the fourth century B.C. if he were accustomed to Erasmian pronunciation, would not have been able to understand a Greek of the first century A.D. and could not

possibly have been understood by him. The difficulty of reconciling this wonderful change is increased, when we remember, that this was the time of the highest Greek culture and development. It is not our duty to solve this difficulty, it is an assertion of the Erasmians, but assertion is no proof, and the *onus probandi* rests with them.

The many words and proper names transcribed from Greek into Latin and from Latin into Greek, are also some guide to the pronunciation of ancient Greek. Yet though they are an undoubted aid, we must be careful how we use it, since we are not certain how the Romans pronounced Latin. Philologists do not perhaps differ so much about the pronunciation of Latin, but still there are considerable divergencies of opinion, as for instance, how c was sounded before e and e, and the correct sound of e and e, which were used to represent the Greek e and e.

Again, Greek literature did not begin to exert its influence on the Romans until about the second century B.C., and judging from the list of Greek words given by Oscar Weise in his work *Die Griechischen Wörter im Latein*, we may conclude that the majority of Greek words were introduced into Latin about the commencement of the empire.

Livius Andronicus, a native of Tarentum, is generally considered as the first who introduced Greek poetry among the Latins in their own language. He had a school in Rome, and for the benefit of his pupils translated Homer and Greek tragedies. The influence of Greek literature, and with it the introduction of Greek words, increased after the taking of Sicily and capture of Carthage and Corinth by the Romans. By degrees the Greek language became familiar to educated

Romans, who readily used Greek words to supply the deficiencies of their own tongue, especially terms pertaining to the arts and sciences—so that Horace could write:

" Græcia capta ferum victorem cepit, et artes Intulit agresti Latio."

But during this period, even by the admission of the Erasmians themselves, Itacism was fast establishing itself, and thus the transcriptions of this time, would be, for them, no trustworthy evidence of the pronunciation of the fourth and fifth centuries B.C. Words were introduced then in different ways as they are now when taken from one language into another. 1. Greek words were introduced without any orthographical change, each Greek letter being represented as nearly as possible by its corresponding Latin one, without any attention being paid to the pronunciation of the whole word, which may have been simply expressed with a Latin pronunciation, as we do in the case of such foreign names as Paris, Berlin, and very many others. It is important to notice that though the Latins may have transcribed Greek words letter for letter, they may have pronounced the words differently from the Greeks. Thus because 'Αθηναι and ἐκκλησία were transcribed in Latin as Athenæ and ecclesia; and census and Lucretius were written in Greek as κηνσος and Λουκρήτιος, it does not follow that $\eta = \tilde{e}$ in Latin; if it does necessarily follow that η was pronounced like Latin \tilde{e} , then the Latin words transcribed Fidias and Piræus for Φειδίας and Πειραιεύς prove conclusively that the Greek $\epsilon\iota$ = Latin i, which all Erasmians are not willing to admit.

But η is not only used to transcribe the Latin \bar{e} , it also takes the place of the Latin i. Polybius in the second century

B.C. writes $\sum \kappa \eta \pi i \omega \nu$ for Scipio, and Plutarch writes $\prod a \lambda \dot{\eta} \lambda \iota a$ for Palilia, and $\sum \epsilon \rho o \nu \dot{\eta} \lambda \iota o s$ for Servilius. These examples, though they do not afford us any correct clue to the manner in which the Latins pronounced the words, yet indicate that η had a sound which fluctuated between e and i in Latin, with perhaps a greater resemblance to the latter.

Secondly, some change was made in the spelling of the word to represent more clearly the Greek pronunciation; these may assist us considerably in judging of the reciprocal vowel-sounds of the two languages. Examples of such changes occur in Οἰκονόμος Oeconomus; οἰστρος, oestrus; αἴνιγμα, aenigma, and numerous other words.

Perhaps we may consider the transcription of $\epsilon\iota$ by i in Latin a more radical change, as representing the Greek diphthong by a single vowel, as in $\epsilon l \rho \omega \nu \epsilon l a$, ironia; $\epsilon l \kappa \omega \nu$, icon; $\epsilon l \delta \omega \lambda o \nu$, idolum.

These transcriptions, though they may not give a positive (or absolute) clue to the ancient Greek pronunciation in consequence of our ignorance of the Latin pronunciation, yet they give us indirect evidence through the traditional Italian pronunciation, and in those sounds of Latin vowels about which there exists little difference of opinion, they afford positive evidence, as in the case of the Latin sound of *i* which in Italian and all Latin languages is pronounced as our *e* in be or *ee* in see. This would prove that the Greek *et* was pronounced, at a very early date, like the Latin *i* and in the same manner as the Greeks pronounce it now. Although these transcriptions cannot be used as examples of the pronunciation of the fourth and fifth centuries B.C., since few of them go as far back as the third century B.C., yet they prove that this pronunciation existed at that time.

It is difficult to suppose that, between the time of the earliest of these transcriptions and the classical period, so great an alteration can have taken place in the pronunciation of $\epsilon \iota$ as to change its sound from that of our i in wine, as the Erasmians pronounce it, to that of our e in be.

As an example of the $\alpha\iota$ sound we may suppose such a word as $\kappa\alpha\iota\sigma\alpha\rho$, which was used by Greeks and Latins, would be pronounced alike by both, and consequently the αe of the Latins, which is now generally admitted to have been something like our αy in $d\alpha y$, would fairly represent the Greek sound. The similarity of the sound of this word in the mouths of both Greeks and Latins would be further increased if we suppose that the present Greek sound of κ before α , as kj was then in existence, for this palatal κ is very similar in sound to that of ϵ in Italian, which probably is the traditional sound of ϵ in Latin.

Though the transcriptions may not enable us to decide absolutely with respect to the Greek pronunciation of the classical period, they certainly indicate with considerable precision, that the present pronunciation of Greek does not differ much from that at the beginning of the Christian era, and probably for a century or two before this period.

The mistakes we find in inscriptions, when a sound has been represented phonetically, instead of by the received orthography, may frequently assist us in judging of the sounds represented by the letters, which have been replaced by others through ignorance or carelessness of the writer. Inscriptions on stone or bronze are naturally done more slowly than writing on papyrus, and would be in general engraven from a copy, which in the case of public inscriptions would be written out first by some public functionary; but still sometimes, through the want

of attention on the part of the engraver or stonemason, we find orthographical mistakes in the inscriptions, and these errors, curiously enough, often give us a clearer insight into the pronunciation than the correct writing. Such assistance as would be given to a foreigner in the case of English words like pleugh and enough, if he saw them written "plow" and "enuf." When, therefore, we find on an inscription twenty examples of Naυπακτίων written correctly, and one written Na Fπακτίων, we infer that the stonemason, in a moment of thoughtlessness. cut the letter F to represent the sound he usually employed in pronouncing the word; another illustration of the same sound is "Ερθετος for εὔθετος upon a Corinthian terra-cotta tablet. We have also $\lambda \nu \pi \acute{a}$ for $\lambda o \iota \pi \acute{a}$, and $o \iota \pi \acute{o}$ for $\dot{\nu} \pi \acute{o}$, the latter two showing clearly the similarity of sound expressed by ν and $o\iota$. Such orthographical mistakes are found in sufficient number to enable us to draw conclusions. Many of these mistakes do not appear to arise from carelessness, but from ignorance of the received spelling. Dr. Engel says that the conclusion to be drawn from inscriptions is, that, above all doubt, there is no peculiarity of the modern Greek pronunciation of the vowels. which cannot be traced back at least as far as the fourth century B.C. in one or more of the dialects of ancient Greece: whilst, on the other hand, there are no inscriptions which support the Erasmian pronunciation.

The consonnification of the ϵ and ι sounds (ϵ , $a\iota$, ι , $\epsilon\iota$, η) before a vowel is frequent in ancient Greek, and very common in modern Demotic poetry and in the language of the people. This feature does not appear to have been sufficiently noticed either by Erasmians or Reuchlinians. By consonnification of the ϵ and ι sounds, is meant that the ϵ or ι sound is pronounced

like the English y, or German j, before the vowel which follows it, and to which it is joined in pronunciation. For instance, such words as $\pi a \lambda a \iota \delta s$, $\partial \rho \nu i a$, $\nu \epsilon \delta s$, are not pronounced $\pi a - \lambda a \iota - \delta s$, $a \rho - \nu i - a$, $\nu \epsilon - \delta s$, but $\pi a \lambda - \gamma \delta s$, $\partial \rho \nu - \gamma \delta s$, in ordinary conversation and reading by the mass of the people. This is generally indicated in Demotic poetry by a curved line under the two vowels, joining them together as $\partial \rho \nu i a$; $\partial \iota a$ in the common language is frequently written $\gamma \iota a$, a corruption of th-ya; the iota is often very slightly heard, and the word sounds something like the German "ja."

Consonnification is known to have been very common among the Romans, and it exercised great influence on the formation of words in the Romance languages. From Quintilian we learn, that the Roman "i" and "j" had originally the same sound, and for a long time uncertainty existed as to the use of these two letters. Brachet tells us, this is why the Latin "i" in some cases has become "j" in French (or "g" soft which is the same thing). Hierosolyma, simia, diurnus, vindemia, have passed into Jérusalem, singe, jour, vendage, proving clearly that the popular pronunciation of these words was Hjerosolyma, simja, djurnus, vindemja. This change of the "i" into the soft sibilant "j" of the French brings two consonants together, and into a sort of collision, PIPIONEM becoming pipionem. In such cases the first of the two consonants disappears; subjectus becomes sujet; dorsum, dos; and similarly pipionem, tibja, rabjes, &c., become PIJONEM, TIJA, RAJES, &c., whence again come pigeon, tige, rage, &c .- (Brachet, French Grammar.)

It is also found in the German pronunciation of "Physiologie," generally sounded "Physjologie," and in all words where an "i" comes before an "o."

The principle of consonnification affords most important assistance in explaining many peculiarities of orthography found in inscriptions, and difficulties of metre. On the Gortynian inscription we find $i\omega\nu\tau\iota$ for $i\omega\nu\tau\iota$, $\mu\omega\lambda i\omega\nu\tau\iota$ for $\mu\omega\lambda i\omega\nu\tau\iota$, which orthographical difference is easily explained by admitting the consonnification of the ι and ϵ ; the same is also found in the transcription of $\lambda\epsilon\gamma\epsilon\hat{\omega}\nu\epsilon$ for "legiones."

It is this same phonetic peculiarity of the e and i sounds which appears in the warnings of the Latin grammarians against writing i for e before a vowel where consonnification assimilates the sounds of the two letters, e.g. "brattea non brattia, vinea non vinia."—(Brambach, Lateinische Orthographie, p. 133.)

On Delphic inscriptions the different forms χαλειεῖς, χαληεῖς, χαλοεῖς are found indiscriminately, which by the principle of consonnification would all be pronounced as "Chal-yis."

The simplification of $\alpha\iota$, $\epsilon\iota$, $o\iota$ before a following vowel, $\epsilon.g.$ $\tau \acute{\epsilon}\lambda \epsilon \iota os$; $\mathring{\alpha}\sigma \acute{\alpha}\lambda \epsilon \iota a$, $\mathring{\alpha}\sigma \acute{\alpha}\lambda \epsilon a$ is better explained by this principle than by supposing that the $\epsilon\iota$ lost its ι sound and became pure ϵ ; $\epsilon\mathring{\iota}\mathring{\alpha}\nu$ for $\mathring{\epsilon}\mathring{\alpha}\nu$; $\mathring{\epsilon}\nu\nu\epsilon\acute{\iota}a$ for $\mathring{\epsilon}\nu\nu\acute{\epsilon}a$ would come under the same rule.

On an Attic inscription of 446 B.C. we find Alveana (C.I.A. 234) and on another of 425 B.C. Alveana (C.I.A. 259); here again the variance may be explained by reading $\epsilon \iota$ and ϵ as consonant y.

The consonnification of the ϵ and ι sounds tends to remove many metrical difficulties which have been unsatisfactorily explained by the terms "synæresis," "crasis," &c. In fact Homer can only be properly read metrically with the traditional pronunciation; at the same time, it must be remembered that Homer was in ancient times always recited or intoned with a musical cadence, and quantities frequently have to give way to

the music. The intonation of the Greek priests in reciting the prayers and reading the Scriptures in their churches, and the manner in which Mussulmans read the Koran in the mosques, may to some extent indicate the way in which Homer was recited, but to which we must add the measures of the verse to which everything else had to give way. As instances of lines which present difficulties of metrical reading, easily removed by the principle of consonnification, we may cite—

ΙΙ. i. 15, χρυσέφ ἀνὰ σκήπτρφ καὶ λίσσετο πάντας 'Αχαιούς.

Where $\chi\rho\nu\sigma\dot{\epsilon}\phi$ must be read as a dissyllable, and is usually explained by saying that $\dot{\epsilon}\phi$ suffers synæresis, but which is really due to its being pronounced *chrys-yó*.

ΙΙ. iii. 152, δενδρέφ ἐφεζόμενοι ὅπα λειριόεσσαν ίεῖσι.

Where $\delta \epsilon \nu \delta \rho \epsilon \phi$ must be read dendr-yo.

Other lines seem to present greater difficulty, when an $\epsilon\iota$ or η has to be elided or contracted with the following vowel to suit the metre, but which are easy enough and more rhythmical when the η is read as our y. Cases of this kind are found not only in Homer, but also in the classical poets; from Homer we may cite—

Od. iv. 352, "Εσχον επεί ου σφιν έρεξα τεληέσσας έκατόμβας.

Where $\epsilon \pi \epsilon i \ o v \ \text{must}$ be pronounced ϵp -you.

Od. iv. 682, 'Η εἰπέμεναι δμωĝσιν 'Οδυσσῆος θείοιο.

'Η εἰπέμεναι must be pronounced yeipémenai. And from Sophocles—

Antig. 1. 97, τοσούτον οὐδὲν ὥστε μὴ οὐ καλῶς θανείν.

Where $\mu \dot{\eta}$ où = m'you, and also in the next example

Ocd. Tyr. 13, εἴην τοίανδε μὴ οὐ κατοικτείρων έδραν.

The same consonnification is sometimes found in Latin.

Virg. Aen. vii. 190, Aureâ percussum virgâ, versumque venenis.

" Ecl. viii. 81, Uno eodemque igni; sic nostro Daphnis amore. Where Aureâ is pronounced aur-ya, and Uno eodem, un-yodem.

Virg. Aen. vi. 412, Deturbat laxatque foros, simul accipit alveo. Where alveo is pronounced alv-yo.

Attention to this peculiarity of consonnification, and also to the fact that ancient Greek poetry was intoned or chanted, will remove most of the difficulties with regard to accent and metre.

We will now consider separately the letters of the alphabet and the diphthongs.

The pronunciation of the vowels α , ϵ , ι , o, has never been disputed. They are everywhere (except in England) pronounced as the Greeks pronounce them.

 η .

This is the letter about which the dispute between the Erasmians and Reuchlinians has raged most fiercely, and it is in truth the one, whose probable sound in the fourth century B.C. is most difficult to determine.

It was not used as a vowel in the Attic alphabet until 403 B.C., when it was formally introduced as a long vowel; till then it had served as the sign of the rough breathing. It is hardly to

be supposed that it would have been introduced into the alphabet then, if it had been pronounced exactly like long ι and could have been represented by ι , nor if it had been pronounced just like long ϵ , for then it could still have been represented by ϵ , as it had been till that time. From this it follows that η was not exactly similar in sound either to $\bar{\epsilon}$ or $\bar{\iota}$.

Blass is of opinion that the educated classes pronounced it like $\tilde{\epsilon}$ till the fourth century A.D.; if this had been the case, we should find at least a few instances of its being interchanged either with ϵ or with $a\iota$ (which is allowed to have been pronounced like ϵ from the first century A.D. onwards), but such an interchange is not once found on Attic inscriptions, it is only found in Bœotia, where η was always written for $a\iota$.

Of its early tendency to become ι , or rather of the close resemblance between the sounds which were later represented by η and ι respectively, we seem to have instances in the parallel forms $\tilde{\eta}\kappa\omega$ and $\tilde{\iota}\kappa\omega$, $\tilde{\epsilon}\pi\tilde{\eta}\beta$ olos and $\tilde{\epsilon}\pi\tilde{\iota}\beta$ olos, $\pi\tilde{o}$ los and $\pi\tilde{o}$ los which we find in Homer. In Attic Greek the collateral forms $\tilde{a}\mu a\xi\eta\tau\tilde{o}$ s and $\tilde{a}\mu a\xi\iota\tau\tilde{o}$ s, $\tilde{\eta}\xi\iota$ s and $\tilde{l}\xi\iota$ s, $\tilde{\lambda}\tilde{a}\gamma\eta\nu\sigma$ s and $\tilde{\lambda}\tilde{a}\gamma\nu\nu\sigma$ s, $\tau\tilde{a}\pi\eta$ s and $\tau a\pi\tilde{\iota}$ s show the same resemblance between η and ι .

Line 7 from the Batrachomyomachia-

Γηγενέων ἀνδρῶν μιμούμενοι ἔργα γιγάντων—

may also be cited.

The inscriptions supply us with some valuable examples of the interchange of ι and η .

In Röhl (Inser. gr. ant. No. 26) we find

ήπποκράτης for ίπποκράτης.1

¹ This and several other inscriptions, which I have inserted in the text, were kindly given me by Dr. Engel of Berlin.

Ross (Inser. gr. erud. No. 264) gives a Carpathian inscription of uncertain date B.C. in which $i\rho\dot{\omega}\omega\nu$ stands for $\dot{\eta}\rho\dot{\omega}\omega\nu$.

An inscription from Andros (see *Le Bas Inser.* v. 174), which dates from before the Christian era, has

πάσις άρετις for πάσης άρετης.

The most interesting examples, however, are to be found in the Gortynian inscription, which is ascribed to the fifth century B.C., and where $\partial u u i \lambda \partial u$ stands for $\partial u u i \lambda \partial u$ xi. 4 (ed. Baunack Bros.) and $\partial u u i \lambda \partial u$ for $\partial u u i \lambda \partial u$ is 28.

Then turning to inscriptions of the Christian era we find in Fröhner (Inser. grec. du Louvre, p. 313), $\dot{v}\pi\dot{\epsilon}\rho$, $\dot{\epsilon}\dot{v}\chi\hat{\imath}s$ for $\dot{\epsilon}\dot{v}\chi\hat{\imath}s$, and $\psi a\lambda\tau\iota\rho iov$ for $\psi a\lambda\tau\iota\rho iov$ on an inscription of the second century A.D., and $\dot{\epsilon}\dot{v}\pi\rho\epsilon\pi\dot{\imath}s$ for $\dot{\epsilon}\dot{v}\pi\rho\epsilon\pi\dot{\imath}s$ on one of 313 A.D. (cf. p. 315).

Steph. Koumanoudes records in his ' $\Lambda \tau \tau \iota \kappa a \iota$ $\epsilon \pi \iota \gamma \rho a \phi a \iota$ $\epsilon \tau \iota \tau \iota \mu \beta \iota \iota \iota$ (pp. 1672 ff.) the various forms ' $H \pi \epsilon \iota \rho \omega \tau \eta s$, ' $H \pi \eta \rho \omega \tau \iota s$, ' $H \pi \iota \rho \omega \tau \iota s$, and ' $H \lambda \epsilon \iota a$, ' $H \lambda \eta \delta s$.

On an inscription from Gytheion (cf. Le Bas, 243, a) of circa 165 A.D. δινάρια is twice written for δηνάρια.

In the New Testament, also, $\kappa \acute{a}\mu \imath \lambda os$, for $\kappa \acute{a}\mu \eta \lambda os$, $\grave{\epsilon}\lambda \acute{a}\kappa \tau \eta \sigma \epsilon$ for $\grave{\epsilon}\lambda \acute{a}\kappa \tau \iota \sigma \epsilon$, $\grave{\epsilon}\xi \upsilon \pi \upsilon \iota \sigma \omega$ for $\grave{\epsilon}\xi \upsilon \pi \upsilon \iota \eta \sigma \omega$, though no doubt errors in spelling, show the prevalence of the confusion of η and ι .

Again, that η and $\epsilon\iota$ were very similar in sound, is rendered highly probable by the fact that they were each held to be the representative of a long ϵ , and that they were interchangeable even within the limits of the same dialect. Thus we have $\kappa \hat{\eta} \nu o s$ for $\kappa \epsilon \hat{\iota} \nu o s$, $\kappa \lambda \epsilon \hat{\iota} s$ or $\kappa \lambda \hat{\eta} s$, $\kappa \lambda \eta \tau \dot{o} s$ or $\kappa \lambda \epsilon \iota \tau \dot{o} s$. As even the Erasmians now admit that $\epsilon\iota = \iota$ from the end of the third century B.C., this interchange of η and $\epsilon\iota$ shows that the three sounds η , $\epsilon\iota$, and ι were very closely, if not exactly, similar.

The most interesting of the inscriptional proofs that we have of this interchange of η and $\epsilon\iota$ is that of the old Sigean inscription (C. I. G. No. 8) on which we find $\epsilon \pi \delta \epsilon \iota \sigma \epsilon \nu$ for $\epsilon \pi \delta \eta \sigma \epsilon \nu$ although η is used as a vowel elsewhere in the inscription.

In Ross (Inser. gr. incd. iii. 246) $\kappa \hat{\eta} \tau \epsilon$ occurs for $\kappa \epsilon \hat{\iota} \tau a \iota$ on an inscription belonging to the first century B.C.

As further examples of the interchange of η and $\epsilon\iota$ in the, same dialect, we may mention the Attic imperfect $\dot{\epsilon}\tau\dot{\iota}\theta\epsilon\iota\varsigma$, $\dot{\epsilon}\tau\dot{\iota}\theta\epsilon\iota\varsigma$, which, as Gustav Meyer says in his Greek Grammar (first edition pp. 73, 74) seems to be only orthographically different from $\dot{\epsilon}\tau\dot{\iota}\theta\eta\varsigma$, $\dot{\epsilon}\tau\dot{\iota}\theta\eta$. Even in the pres. indic. we find $-\epsilon\iota\varsigma$ instead of $-\eta\varsigma$ as the termination of the second pers. sing. So in Soph. Phil., 992 $\tau\dot{\iota}\theta\epsilon\iota\varsigma$: Soph. Ant., 403: Soph. Elect., 596, $\tilde{\iota}\epsilon\iota\varsigma$.

The subjunctive in \hat{j} is also written $\hat{\epsilon}$ on inscriptions of the fourth century B.C., C. I. A. 49, 10, where $\pi \rho a \chi \theta \hat{\epsilon} \hat{i}$ occurs for $\pi \rho a \chi \theta \hat{j}$, and C. I. A. 61, 24, where $\pi a \rho a \sigma \kappa \epsilon \nu a \sigma \theta \hat{\epsilon} \hat{i}$ occurs for $-\sigma \theta \hat{j}$: other examples of this can be easily found on inscriptions of the same period.

Further in C. I. A. ii. 403, 38 we have ἀνατεθηκότων (292 B.C.), whilst in C. I. A. ii. 470, 71 and 80 ἀνατεθείκασιν is written.

On an inscription of the first century B.C. we have $\tau \dot{\eta} \nu \pi \rho \epsilon \sigma \beta \dot{\eta} a \nu$ for $\pi \rho \epsilon \sigma \beta \dot{\epsilon} \dot{a} \nu$, and on another one of 266 B.C. (see C. I. A. ii. 332) $\dot{a} \gamma a \theta \hat{\eta} \tau \dot{\nu} \chi \epsilon \iota$ for $\tau \dot{\nu} \chi \eta$, and $\tau \epsilon \hat{\iota}$ for $\tau \hat{\eta}$.

After the first century A.D., the examples of this interchange are frequent; for instance, the inscription on the monument to the wife of Herodes Atticus has $\partial \nu a \theta \eta \eta$ (for $\partial \nu a \theta \epsilon \eta$), $\nu \epsilon \iota \delta \nu$ (for $\nu \eta \delta \nu$), $\partial \tau \rho \epsilon \hat{\iota} \epsilon s$ (for $\partial \tau \rho \hat{\iota} \epsilon s$) and $\mu \eta \nu$ (for $\mu \iota \nu$); it dates from the second century A.D. (Fröhner, No. 7). Again, on an inscription from Olbia of the time of Tiberius (Latyshev, No. 47) we read

πλήουας (for πλείουας), ἐπιτάδηου (for ἐπιτάδειου), χρήας (for χρείας) and ἀσαμήωτου (for ἀσαμείωτου).

As other arguments for the similarity of η to ι and $\epsilon\iota$, we may adduce two etymologies from the *Cratylus*, the first being that of $\Delta\eta\mu\dot{\eta}\tau\eta\rho$ from $\delta\dot{\ell}\delta\omega\mu\iota$ and $\mu\dot{\eta}\tau\eta\rho$, the second that of "H $\rho\omega$ s from $\epsilon\ddot{\ell}\rho\epsilon\iota\nu$. They are obviously false, but all the plausibility they have is derived from the resemblance in sound between $\delta\eta$ - and $\delta\iota$ -, $\eta\rho$ - and $\epsilon\iota\rho$ -.

So in Aristoph. Pax, 925, the point of the pun depends on the resemblance in sound between β of and β on θ ϵ $\hat{i}\nu$, and again, l. 928, between $\hat{\nu}t$ and $\hat{\nu}\eta\nu la$.

In Cratylus 418 c. Plato says οἱ μὲν ἀρχαιότατοι ἱμέραν τὴν ἡμέραν ἐκάλουν, οἱ δὲ ἐμέραν, οἱ δὲ νῦν ἡμέραν; this remark seems to indicate that there was a slight difference between ἰμέρα and ἡμέρα, though whether it was in quality or quantity we cannot tell.

In Latin η is nearly always transcribed by \bar{e} , consequently the Erasmians say, η was pronounced like \bar{e} , that is like English "ay" in "day." Blass says that transliterations like $\kappa \hat{\eta} \nu \sigma \sigma s$ for census, $\Lambda o \nu \kappa \rho \hat{\eta} \tau \iota \sigma s$, Athēnae, ecclesia are sufficient proof that η was pronounced like \bar{e} . At first sight this statement may seem perfectly correct and credible, but on closer examination, we shall find reason to take some exception to it.

Firstly, we have spoken above of the fact, that though a word may be transcribed from one language into another without any change in the spelling, it does not necessarily follow that it is pronounced alike in the two languages, cf. "Paris" in the French and English pronunciation, "Yacht" in the German and, English. The Romans would naturally transcribe the Greek η by their corresponding letter \bar{e} , even if the sounds of the two letters were not exactly similar; hence it is not a necessary

consequence that "Athenæ" and 'A $\theta \hat{\eta} \nu a \iota$, $\kappa \hat{\eta} \nu \sigma o s$ and census, should have been *pronounced* exactly alike because they are written alike.

Secondly, η was used not only to transcribe Latin \bar{e} , but also Latin i. Thus in Plutarch we find $\sum \epsilon \rho o \nu \dot{\eta} \lambda \iota o s$ for Servilius $\prod a \lambda \dot{\eta} \lambda \iota a$ for Palilia; Polybius, who was a personal friend of Scipio's, always writes his name as $\sum \kappa \eta \pi \iota' \omega \nu$, Strabo and Plutarch do likewise. From this it would seem that η was an intermediate sound between Latin \bar{e} and i.

Thirdly, the pronunciation of Latin ē is itself uncertain. It often represented an "ei" and, on the other hand, tended to become "i," and therefore very probably closely resembled it in sound: thus we have "tristes" from "tristeis"; "Vergilius" written "Virgilius" and so on. Again, the grammarian Probus (fl. second century A.D.) warns against the wrong spellings "emago" (for imago), demidius (for dimidius); sinatus (for senatus); and Serena (for Sirena). Other grammarians recommend the spelling "filix" (for felix).

The strongest argument, however, that the Erasmians adduce to prove that η was pronounced like "ay" in "day", is the $\beta\hat{\eta}$, $\beta\hat{\eta}$ which Cratinus uses to represent the bleating of a sheep in the well-known line:

ό δ' ηλίθιος, ώσπερ πρόβατον, βη βη λέγων βαδίζει.

the sheep, they say, cry "bay, bay" and not "bee, bee." The first objection we make to this argument is that Cratinus himself in all probability wrote $\beta\epsilon$, $\beta\epsilon$ or $\beta\epsilon\epsilon$, $\beta\epsilon\epsilon$ as the η was not used as a long vowel in the Attic alphabet in his time, and thus the η was introduced in the place of ϵ by the careless copiers of a later age, whereas it ought not, perhaps, to have been changed.

On the other hand, it is just probable that Cratinus may have used the Ionic alphabet which already possessed η as a long vowel, and have written $\beta\hat{\eta}$, $\beta\hat{\eta}$: in this case he may have chosen η , which from all evidence seems to have been an intermediate sound between ϵ and ι , as being the best adapted to express an indefinite, inarticulate animal-cry.

Finally, even if η was a distinct "ē" sound, we may remark that this same "ē" sound is found in our verb "to bleat."

The grammarian Sextus says that "the shortened form of η is ϵ and the lengthened form of ϵ is η :" here he is probably referring to the fact that etymologically η often represents the lengthening of ϵ as $\epsilon.g$. in the augments of verbs, and contractions as $\epsilon\rho\omega\tau\hat{\omega}$, $\eta\rho\dot{\omega}\tau\eta\sigma\alpha$, $\epsilon\gamma\epsilon\ell\rho\omega$, $\eta\gamma\epsilon\iota\rho\alpha$, and $\tau\epsilon\ell\chi\epsilon\epsilon$, $\tau\epsilon\ell\chi\eta$. He can hardly be referring to the pronunciation of the letters, as he did not live till the third century A.D., when there is hardly any doubt that η was generally pronounced like iota.

That η , when shortened, often becomes ϵ , as Sextus says, can be shown both from ancient and modern Greek, thus we have $\xi\epsilon\rho\delta$, Ionic for $\xi\eta\rho\delta$, $\dot{a}\nu\dot{a}\theta\epsilon\mu a$ for $\dot{a}\nu\dot{a}\theta\eta\mu a$, and in modern Greek, $\theta\epsilon\rho\delta$ for $\theta\eta\rho\delta$, $\beta\dot{a}\rho\epsilon\mu a$ for $\beta\dot{a}\rho\eta\mu a$, $\phi\delta\rho\epsilon\mu a$ for $\phi\delta\rho\eta\mu a$.

In modern Greek, too, it is often difficult to tell whether the η in an unaccented syllable partakes more of the ϵ or ι sound, for instance, when the word $\kappa\eta\rho i o \nu$ is pronounced by a Greek, it is very hard to say whether the η sounds more like ϵ or ι .

This is, however, partly due to the fact that it is immediately followed by an accented syllable, on which the stress of the voice is laid, so that the η sound is not so clearly distinguished.

From all this collected evidence it would seem that η , in the fourth century B.C., was an intermediate sound between ϵ and ι , now pronounced just like ι or English c in be.

υ.

Now pronounced just like ι or English "e" in "be."

In very early times it would seem that v was pronounced like ov (German u or English oo), but as early as the fifth century B.C. we find ι written instead of v, from which we may assume that gradually the sound of v had come to be something between that of ov and ι , perhaps like the German \ddot{u} or French u. The ι sound appears to have prevailed more and more until at the beginning of the Christian era, if not sooner, there was no perceptible difference between v and ι . We might conclude, therefore, that the pronunciation of v passed, as it were, through three stages: oo, \ddot{u} , ee—we find the same three gradations in German, "funf" in O.H.G., now "funf," which in South Germany is pronounced "finf."

We find instances of the interchange of v and ι at an early period even in Attic. This interchange was not general but only occurred in a few words, $\epsilon.g$. in $\beta\iota\beta\lambda\ell\sigma\nu$ (a foreign word) which is also written $\beta\nu\beta\lambda\ell\sigma\nu$, and in $\eta\mu\iota\sigma\nu$ which in C.I.A. ii., 17, A. 45, an inscription of 378 B.C. and on all later ones is written $\eta\mu\nu\sigma\nu$; beyond these words, it occurs in proper names of obscure meaning, thus we have $Mo\nu\nu\nu\chi\ell\omega\nu$ and $Mo\nu\nu\iota\chi\ell\omega\nu$, $\Lambda\mu\phi\iota\kappa\tau\ell\sigma\nu$ and $\Lambda\mu\phi\iota\kappa\tau\ell\sigma\nu$.

In some cases ν and ι were interchanged in the same word, such interchange may perhaps be due to assimilation and there may have been variation in pronunciation as well as in writing; for example, we have writings such as $M\iota\tau\nu\lambda\acute{\eta}\nu\eta$ and $M\nu\tau\iota\lambda\acute{\eta}\nu\eta$.

Outside Attica we also have numerous examples of v for ι and ι for v; thus on Laconian inscriptions we find $T\iota\nu\delta a\rho\iota'\delta a\iota$ for $T\iota\nu\delta a\rho\iota'\delta a\iota$ (v. Röhl. 62, a), and Έλευννια for Έλευσίνια (v. Röhl. 79, 11).

On Corinthian vases of an apparently early date (cf. Dial-Inschr. 3135 and 3130), 'Υσμήνα stands for Ίσμήνη, and Κιανίς for Κυανίς.

For this confusion between v and ι , we may compare the different forms, "Hülfe" and "Hilfe," "gültig" and "giltig," &c., in German, and the fact that in Southern Germany \ddot{u} is always i. So in the Æolic dialect of ancient Greek ι was written for the Attic v, e.g. $i\psi \eta \lambda \delta s$ (for $i\psi \sigma s$, $i\psi \eta \lambda \delta s$).

On the other hand, as evidence for v having at one time been sounded similarly to ov, we have the fact that in the Æolic dialect, and especially in Bootia, ov was often written for Attic v, whence the forms $\theta ov \gamma \acute{a} \tau \eta \rho$ (Æolic), $o \acute{v} \delta \omega \rho$, $\kappa o \hat{v} \mu a$, $\kappa o \hat{v} \nu \epsilon s$ from Bootia.

This old ov sound is still retained in some of the modern dialects; thus in the Chian dialect we have $\kappa\iota ov \rho\acute{a}$ for $\kappa v \rho ia$, and in the Laconian $\nu\iota ov \tau \tau \acute{a}$ for $\nu\acute{v}\kappa\tau a$, and even in all parts of Greece ov is now written and spoken in many words which were formerly written with an v: as examples we may give $\mu ov \sigma \tau \acute{a}\kappa\iota ov$ from ancient $\mu\acute{v}\sigma\tau a\xi$, $\sigma\kappao\acute{v}\tau\iota ov$ from $\sigma\kappa\acute{v}\tau o\varsigma$.

Its great resemblance to the iota sound is also shown by its being sometimes interchanged with $\epsilon\iota$, as in the word $\Phi\lambda\epsilon\iota\dot{u}\sigma\iota o\iota$ which occurs for $\Phi\lambda\nu\dot{u}\sigma\iota o\iota$ in the inscription on the bronze stand of the gold tripod, which the Greeks dedicated at Delphi c. 475 B.C. after the battle of Platæa; and on their drachmas of 430 B.C. we also find $\Phi\lambda\epsilon\iota a\sigma(\omega\nu)$.

In Latin v was first transcribed by "u" and later, in Cicero's

time, by "y", thus we have mus from $\mu\hat{\nu}_{S}$, sus from $\sigma\hat{\nu}_{S}$, cuprum from $\kappa\hat{\nu}\pi\rho\sigma\nu$, and onyx from $\delta\nu\nu\xi$, herpyllum from $\epsilon\rho\pi\nu\lambda\lambda\sigma\nu$, Cyprus for $K\hat{\nu}\pi\rho\sigma$. We cannot conclude much from the former of these transliterations, as we do not know what the exact pronunciation of the Latin u was; but that it was not the exact equivalent for the Greek ν , we learn from Quintilian (xii. 10, 27) who, speaking of the Latin language, says: "Iucundissimas ex Græcis litteras non habemus (ν et ν) quibus nullæ apud eos dulcius spirant."

ω.

In the modern language there is no difference between the sounds of ω and o, they are both pronounced alike, somewhat as the English o in 'core.'

The Greeks themselves and all Reuchlinians are agreed in thinking, that in the classical period there was more distinction between them; and the most palpable proof of this is that, if o and ω had been pronounced alike, ω would not have been introduced into the alphabet in 403 B.C.; but whether the distinction was only one of quantity or also one of quality, it is impossible to say.

Its early tendency to become o, especially in unaccented syllables, seems to be shown by the accentuation of such words as $\mu o \nu \delta \kappa \epsilon \rho \omega s$, $\delta \iota \nu \delta \kappa \epsilon \rho \omega s$ and of the genitives in $-\epsilon \omega s$ and $-\epsilon \omega \nu$, ϵg , $\pi \delta \lambda \epsilon \omega s$, $\delta \nu \nu \delta \mu \epsilon \omega \nu$.

Outside Greece proper, e.g., in Egypt, the greatest confusion prevailed in the usage of o and ω as early as the third and second centuries B.C.; thus on papyri of the Ptolemæan period we find such spellings as: — $\omega \kappa \tau a \epsilon \tau \eta \rho l \delta a$, $\omega \rho \hat{\alpha} \tau a \iota$, $\mu \epsilon \hat{\iota} \zeta \omega \nu$,

 $\mu\epsilon\theta o\pi o\rho\nu i\nu \delta\varsigma$, &c. This interchange of o and ω is also found on Greek inscriptions, but not very frequently on those of the best time.

 $a\iota$

aι is now pronounced like ϵ or English ey in 'they.' The Erasmians maintain that it was pronounced as a diphthong till 30 B.C., if not later, because Dionysius of Halicarnassus finds fault with the phrase 'καὶ 'Αθηναίων' in Thucydides because, as he says, "the sounds of the ι and α do not blend." But what does that mean? If $\alpha\iota$ be pronounced as a diphthong, why should the α of 'Αθηναίων not sound well after the ι of the καὶ, which pronounced as a diphthong would be καὶ? There are many words, e.g., "Γακχος, ἰατρός, in which α follows ι without producing a disagreeable effect. The objection seems to be meaningless and unworthy of any serious consideration; Dionysius did not even know how Thucydides pronounced the words, and yet he tries to correct him.

Secondly, some grammarians, in order to distinguish $a\iota$ from a, call the former $\dot{\eta}$ $a\iota$ $\delta \iota \dot{\phi} \theta o \gamma \gamma o s$ $\dot{\eta}$ $\ddot{\epsilon} \chi o \upsilon \sigma a$ $\tau \dot{o}$ ι $\dot{\epsilon} \kappa \dot{\phi} \omega \upsilon o \dot{\iota} \mu \epsilon \upsilon o \upsilon$ and this definition does not seem applicable to $a\iota$ pronounced like ϵ . These grammarians may, however, only have been referring to the fact that in $a\iota$ the ι was sometimes pronounced, i.e., in those cases where we should write it $a\ddot{\iota}$, whereas in a it never was pronounced.

Other grammarians, again, distinctly state that $a\iota$ was not pronounced $a\bar{\iota}$. For instance, the illustrious grammarian, Herodian, who lived in the earlier half of the second century, A.D. draws a distinction between words spelt with ϵ and $a\iota$, ϵg , between $\pi \epsilon \delta a\iota$, $\kappa \epsilon \nu \delta s$ and $\pi a \hat{\iota} \delta \epsilon s$, $\kappa a \iota \nu \delta s$ by saying that

the former should be written $\delta \iota \dot{\alpha} \tau o \hat{\nu} \in \psi \iota \lambda o \hat{\nu}$, the latter $\delta \iota \dot{\alpha} \tau \hat{\eta}_S \alpha \iota \delta \iota \phi \theta \delta \gamma \gamma o \nu$, which proves that in his time the educated Greeks of Alexandria and Rome pronounced ϵ and $\alpha \iota$ alike.

Sextus Empiricus, too, calls $\alpha\iota$ a $\phi\theta\dot{\phi}\gamma\gamma\sigma$ μ ονοειδής and a $\sigma\tau\sigma\iota\chi\epsilon\hat{\iota}\sigma\nu$.

In the language itself the numerous collateral forms of words spelt with either $a\iota$ or ϵ , afford strong proof of the early resemblance between the sounds $a\iota$ and ϵ ; such forms are $a\iota\dot{\omega}\rho a$ (Plato), and $\dot{\epsilon}\dot{\omega}\rho a$, (Sophoeles), $\phi a\iota'\nu a\xi$ and $\phi \dot{\epsilon}\nu a\xi$, $a\iota\dot{\omega}\lambda\omega$ and $\dot{\epsilon}\dot{\epsilon}\lambda\omega$, $\dot{\alpha}\nu\dot{\omega}\gamma a\iota \nu\nu$ and $\dot{\alpha}\nu\dot{\omega}\gamma\epsilon \nu\nu$, and the derivatives, $\gamma\epsilon\dot{\omega}\gamma\rho a\phi os$, $\gamma\epsilon\dot{\omega}\mu\epsilon\tau\rho os$ and others from the word $\gamma a\iota a$. This interchange of $a\iota$ and ϵ is also found on Attic and other inscriptions; thus on nearly all the Attic inscriptions of the fifth and fourth centuries B.C. we find the form $\Pi o\tau\iota \delta\epsilon \hat{a}\tau a\iota$ c.g. (in C. I. A. i. 244) on an inscription of e. 436 B.C. (cf. also C. I. A. i. 240, 241, 242), but on the bronze stand of the gold tripod which the Greeks dedicated at Delphi in the year 475 B.C. the form $\Pi o\tau\iota \delta a\iota \hat{a}\tau a\iota$ is used.

Further, we find 'Αλκμεωνίδης for 'Αλκμαιωνίδης on two inscriptions, one of 460 B.C., the other of 373 B.C. (v. C. I. A. 433 and ib. i. p. 254), and again 'Αλκμεωνίδου on one of the earlier half of the fourth century B.C. (cf. C. I. A. 946).

Αὐλεᾶται occurs for Αὐλαιᾶται on two inscriptions of the fifth century B.C. (cf. C. I. A., i. 229 and 237.) An inscription from Megara of the third century B.C. has κέκρυπτε, δόξες and μυρίες for κέκρυπται, δόξαις and μυρίαις (v. C. I. G., 1051, 1066), Ross (Inser. gr. ined. iii. 246) gives an inscription of the first century B.C. on which κῆτε occurs for κεῖται.

In the Septuagint the Hebrew c is regularly transcribed by the Greek $\alpha\iota$, c.g., $B\alpha\iota\theta\eta\lambda$ for Bethel, $A''\lambda\alpha\mu$ for Elam. On the inscriptions of the Christian era, the examples of this interchange are much more frequent; for instance, we have $\pi\rho o\theta v\rho\acute{e}ovs$ for $\pi\rho o\theta v\rho a\acute{e}ovs$ on one of 211 a.d. (v. Fröhner, 29) and $\Lambda\eta v\acute{e}\omega vos$ for $\Lambda\eta va\acute{e}\omega vos$ on another of 201 a.d. (v. Latyshev, Inser. gr. orae septent. Pont. Eux., No. 3).

Further evidence against the broad pronunciation of $a\iota$ is given us by Aristophanes, in the following passage from the *Clouds* ll., 870, ff.

Phid. εἰ κρέμαιό γε. Socr. ἰδοῦ κρέμαι, ὡς ἢλίθιον ἐφθέγξατο

Only the Erasmian pronunciation of $a\iota$ as German ai suits this description.

καὶ τοῖσι χείλεσιν διερρυηκόσιν.

In Latin at was transcribed by ac, e.g., aether from $ai\theta \dot{\eta} \rho$, aenigma from ἄινιγμα, musae from μοῦσαι, vae from Fai, and as the pronunciation of Latin ac is now almost universally admitted to have been like the German ä or English 'ay' in 'day,' it would follow from this transcription that the Greek at was also pronounced like our 'ay' in 'day,' that is like the Greek e. Plutarch transcribes both Latin ac and c by at, for 'fenestra' he writes φαινέστρα, for Caecilius, Καικίλιος, but also Κεκίλια as well as Καικίλια. So too, Dionysius of Halicarnassus (fl. 30 B.C.), writes Πρενεστίνοι for Praenestini, whereas, Strabo and others write Πραινεστίνοι: and on inscriptions and coins of the time of the Cæsars ϵ is often put for $\alpha \iota$, e.g., on a coin of Nero's of 69 A.D., $\Pi \circ \pi \pi \epsilon \alpha$ is written for $\Pi o \pi \pi a i a$. These examples show that there was apparently no difference in pronunciation between the Latin ac and the Greek $a\iota$ and ϵ .

The accentuation of words ending in $-a\iota$ and the treatment of $a\iota$ in prosody also argue against the broad pronunciation of it as German $a\iota$. For, if $a\iota=a\iota$, how can the accentua-

tion of words like $\kappa a' i \nu \nu \mu a i$, $\epsilon \pi i \sigma \tau a' \mu \epsilon \nu a i$, $\lambda \nu \sigma a \sigma \theta a i$, $\delta \mu o i a i$, $\delta \epsilon i \lambda a i a i$ be reconciled with the fact that the Greeks never accented a word on the propenultimate unless the final syllable was short? It is very hard to imagine that a broad sound like the German ai or English $\bar{\imath}$ in "wine" could be accounted short in prosody, yet it must be done if the Erasmian pronunciation is correct, for -ai is constantly scanned as a short syllable when it is a flexional ending and even in $\kappa a i$ in Homer. These difficulties at once disappear if the traditional pronunciation of ai as ϵ be accepted as correct, for then ai can be equivalent to either long or short ϵ , as the metre or accentuation requires.

The arguments to be drawn from Elision and Crasis may next be considered.

The Erasmians argue that this elision can be easily explained from the pronunciation of $\alpha\iota$ as German ai; ai, they say, easily loses its i sound and becomes $\check{\alpha}$ and then this $\check{\alpha}$ is clided:—but how can this assertion be proved? A much more plausible explanation is that $\alpha\iota$ was, as now,

pronounced like ϵ , and that this simple vowel sound was dropped before a similar or a stronger vowel sound.

The question of Crasis seems a very difficult one to explain, and does not appear to be of much use for ascertaining the pronunciation of the vowels and diphthongs concerned. In Crasis quite a different vowel sound seems often to be produced rather than a combination of the two original sounds; this may be illustrated by such Crases as $\kappa \hat{a} \tau a$ from $\kappa a \hat{i} \epsilon \hat{i} \tau a$, and $\mu o \hat{i} \sigma \tau i \nu$ from $\mu o \hat{i} \epsilon \sigma \tau i \nu$, for, if the separate words be pronounced either according to the Erasmian or the traditional pronunciation, in either case the contracted form contains a vowel sound which is not heard in the separate words. Most probably these Crases were little used in speaking but were stereotyped forms of writing, based on the principle of dropping the middle one of the three vowels, when there were three, and contracting the other two according to the regular rules for contraction. A very good example of a Crasis, in which the two original vowel-sounds are replaced by quite a different one, and which can hardly have been pronounced as it is written, is θάτερον from τὸ ἔτερον.

€l.

 $\epsilon \iota$ now = ι or English "e" in "be."

The Erasmians pronounce it like German ei or English long $\bar{\imath}$, but there are no proofs whatever that it was ever so pronounced, and they themselves admit that its pronunciation had become quite assimilated with that of iota, by the second century B.C.

On the other hand we have numerous proofs of its resemblance to ι . A large number of very old words are written with

either $\epsilon \iota$ or ι , $\ell . g$. $\epsilon \iota \omega$ and $\iota \omega$, $\sigma \tau \epsilon \iota \beta \omega$ and $\sigma \tau \iota \beta \omega$; and in Homer and Hesiod we find the collateral forms $\epsilon \iota \kappa \epsilon \lambda \sigma s$ and $\iota \kappa \epsilon \lambda \sigma s$, $\gamma \epsilon \iota \nu \sigma \mu \alpha \iota$ and $\gamma \iota \nu \sigma \mu \alpha \iota$, $\epsilon \iota \sigma \sigma s$ and $\iota \sigma \sigma s$, $\epsilon \rho \epsilon \iota \kappa \omega$ and $\epsilon \rho \iota \kappa \omega$.

In the Bœotian dialect ι is found for $\epsilon\iota$ on very early inscriptions, c.g. $\iota'\kappa\alpha\tau\iota$ (for $\epsilon\iota'\kappa\sigma\sigma\iota$), $a\iota'$ (for $\dot{a}\epsilon\iota'$).

On the Gortynian inscription (fifth century B.C.) $\pi\rho\epsilon l\nu$ is found for $\pi\rho l\nu$; and $\pi\lambda lo\nu$, $\pi\lambda lo\nu$, $\pi\lambda lo\nu$ for $\pi\lambda\epsilon lo\nu$, $\pi\lambda\epsilon lo\nu$, $\pi\lambda\epsilon lo\nu$ respectively.

On many Elean inscriptions of the classical period ι occurs for $\epsilon\iota$, e.g. $^{3}I\rho\iota\varsigma$ for $E^{3}i\rho\iota\varsigma$, $\phi\iota\delta\iota \circ\nu$ for $\phi\epsilon\iota\delta\iota \circ\nu$, $\tau\epsilon\iota\mu\hat{a}\varsigma$ for $\tau\iota\mu\hat{a}\varsigma$.

The forms $\epsilon \tau \epsilon l \mu \eta \sigma a v$, $\tau \epsilon \iota \mu a i s$ are found on nearly all the Carian inscriptions in the C.I.G. pp. 511 ff.

That $\epsilon \iota$ was pronounced like ι in Plato's time can be inferred from the two following etymologies—

- (a) Cratyl. 402, Ε. ωνόμασε Ποσειδώνα ώς ποσίδεσμον όντα.
- (b) ,, 408, Β. ή γε τρις ἀπὸ τοῦ εἴρειν ἔοικε κεκλημένη.

Again, on Attic inscriptions we only find the forms in ι of $\Pi o \sigma \iota \delta \epsilon \acute{\omega} \nu$ and $X \acute{\iota} \rho \omega \nu$ (cf. C.I.G. 7400, 8359); $X \epsilon \acute{\iota} \rho \omega \nu$ is only once found on an unreliable inscription.

In C.I.A. i. 463 we have οἰκτίρω for οἰκτείρω.

The ending -κλίδης is often found instead of -κλείδης, e.g. (Dial. Inschr. 3121) Χαρικλίδας.

An Athenian inscription of the end of the fifth century B.C. has $\frac{\partial \pi}{\partial \theta} = \frac{\partial \pi}{\partial \theta} = \frac{\partial \pi}{\partial \theta} = 0$ (cf. Fröhn. p. 198, 15).

From 200 B.C. there seems to have been very great confusion in the use of $\epsilon\iota$ and ι . Frequently $\epsilon\iota$ was put for ι , $\epsilon.g.$ $\pi o \lambda \epsilon i \tau \eta s$, and thus a wrong orthography was propagated, $\epsilon.g.$ $\tau i \omega$ should be $\tau \epsilon i \omega$, and probably $o i \kappa \tau \epsilon i \rho \omega$ should be $o i \kappa \tau i \rho \omega$, and $i \mu \acute{a} \tau \iota o \nu$, $\epsilon i \mu \acute{a} \tau \iota o \nu$. For further examples we may refer to an inscription of the second century B.C. (v. C.I.G. 5594) where the forms $\acute{\rho}\iota \nu \acute{o} s$, $\acute{\rho} \imath \nu a$ stand side by side with $\acute{\rho} \epsilon \iota \nu \acute{o} s$, $\acute{\rho} \epsilon \imath \nu a$; and to the

inscriptions from Stiris of 180 B.C., where the forms $\Sigma \tau \epsilon \ell \rho \iota o \iota$, $\Sigma \tau \iota \rho \ell \omega \nu$, $\Sigma \tau \epsilon \iota \rho \ell \omega \nu$, $\Sigma \tau \iota \rho \ell \omega \nu$ are used without any distinction (v. *Dial. Inschr.* 1539 ff.).

On the papyri, too, of the second century B.C. $\epsilon \iota$ and ι are used indifferently one for the other.

The Septuagint consistently renders the Hebrew i by $\epsilon \iota$, $\epsilon \cdot g$. $\chi \epsilon \rho o \nu \beta \epsilon i \mu$ (= Cherubim).

After the beginning of the Christian era, the examples of $\epsilon\iota$ for ι , and $vice\ vers\hat{a}$, can be found on nearly every inscription; as instances we may mention the writings $\pi\epsilon i ova$ (for $\pi i ova$), $\tau\epsilon\iota \mu \eta \sigma a\tau\epsilon$ (for $\tau\iota \mu \eta \sigma a\tau\epsilon$), $\sigma i \sigma a\sigma a$ (for $\sigma\epsilon i \sigma a\sigma a$) which are found on the inscription on the statue to the wife of Herodes Atticus (second century A.D.), and also the following, which are taken from Latyshev's Inser. grace. et lat. orae septent. Pont. Eux.:

αΐμνηστος (for ἀείμνηστος), ἐπιδὴ (for ἐπειδὴ), γεινώσκειν (for γινώσκειν), μειμεῖσθαι (for μιμεῖσθαι), ἰς τὴν ἀκρείβειαν (for εἰς τὴν ἀκρίβειαν), ᾿Αφροδείτη (for ᾿Αφροδίτη), ἐξάγιν (for ἐξάγειν). All these date from the first and second centuries A.D.

We have also the grammarians' testimony to prove that $\epsilon \iota$ was by them considered to be one simple sound: cf. Sextus Empiricus who says " $\delta \tau \circ \tilde{\upsilon}$ $\epsilon \iota$ $\phi \theta \delta \gamma \gamma \circ \tilde{\upsilon}$ $\delta \pi \lambda \circ \tilde{\upsilon}$; $\delta \sigma \tau \iota$ $\kappa a \iota$ $\mu \circ \nu \circ \epsilon \iota \delta \eta \circ \tilde{\upsilon}$." And Aulus Gellius, who evidently considered that $\epsilon \iota$ was superfluous and might have been represented by ι , when he wrote the following remark: "Graecos non tantae inscitiae arcesso, qui $\delta \upsilon$ ex δ et υ scripserunt, quantae qui $\delta \iota$ ex δ et ι ; illud enim inopia fecerunt, hoc nulla re subacti."

We have thus shown that from the earliest times there is continuous and frequent proof of the interchange of $\epsilon\iota$ and ι . From the end of the third century B.C. it is universally admitted to have been equivalent in sound to iota; the modern

pronunciation shows no distinction. We have, accordingly, uninterrupted evidence for its pronunciation as ι (i.e. as English "e" in "be") for a period of more than 2000 years.

oı.

Now pronounced like ι , or our English "e" in "be."

This diphthong is one of the oldest in the Greek language and is found on inscriptions long before 403 B.C., when $\epsilon\iota$ and $o\nu$ were first introduced; therefore it had, at the beginning of the fourth century B.C., been already several centuries in use, and its sound may by that time have already become assimilated to that of iota, even if *originally* the two distinct sounds of σ and ι were heard in its pronunciation.

We have not, however, any proofs that it ever was pronounced like $o\ddot{\imath}$ or oy, all the evidence we have tends to prove its great similarity to the υ and ι sounds.

Its close relationship to v and ι is demonstrated by the kindred words $\kappa o i \rho a \nu o s$ and $\kappa \dot{\nu} \rho \iota o s$, $\lambda \nu \gamma \rho \dot{o} s$ and $\lambda o \iota \gamma \dot{o} s$, and the collateral forms $\phi \lambda o i a$ and $\phi \lambda i a$, $\gamma \lambda o i a$ and $\gamma \lambda i a$, and many others which we have in Attic. Very many old words in all the dialects can be correctly written either with $o\iota$ or v; such are $\kappa o i \lambda o \nu$ or $\kappa \dot{\nu} \lambda o \nu$, $\delta \rho \dot{\nu} \tau \eta$ and $\delta \rho o i \tau \eta$, $\delta i \delta \nu o \nu$ and $i \delta \nu o \nu$, $\psi o i a$ or $\psi \dot{\nu} a$, $\dot{\rho} o i \kappa o s$ or $\dot{\rho} \dot{\nu} \kappa o s$. Some dialects, especially the Æolic, often write v for Attic $o\iota$; thus the Boeotians write $\dot{\epsilon} \mu \dot{\nu}$, $\kappa a \lambda \dot{\nu}$, $\tau \dot{\nu} s$ $\ddot{a} \lambda \lambda \nu s$, $\ddot{\epsilon} \chi v$, for Attic $\dot{\epsilon} \mu o i$, $\kappa a \lambda o i$, $\tau o i s$ $\ddot{a} \lambda \lambda o \iota s$, $\ddot{\epsilon} \chi o \iota$.

The belief that it was pronounced more like ν than any other vowel is strengthened by the fact that the grammarians named it ' ν $\delta \iota \grave{a}$ $\delta \iota \varphi \theta \acute{o} \gamma \gamma o \nu$ ' to distinguish it from $\mathring{v} \psi \iota \lambda o \nu$.

The interchange of $o\iota$ and v is also found on the papyri of the second century B.C.; thus $\dot{a}\nu\dot{v}\gamma\epsilon\tau\epsilon$ and $\dot{a}\nu\dot{v}\gamma\omega$ on one of

160 B.C. In the first and second centuries A.D. the examples of this interchange on Greek inscriptions are numerous; thus $\lambda \nu \pi \acute{a}$, $\nu \epsilon \omega \pi \nu \acute{a}\nu$, $\pi \epsilon \pi \acute{\nu} \eta \mu a\iota$, for $\lambda \iota \iota \pi \acute{a}$, $\nu \epsilon \omega \pi \iota \iota \acute{a}\nu$, $\pi \epsilon \pi \acute{\nu} \eta \mu a\iota$, are found on inscriptions from Aphrodisias (v. C.I.G. 2824, 2826); $\iota \iota \pi \acute{a}$ (for $\iota \iota \pi \acute{a}$) on a Lydian one of the year 126 A.D. (v. Bull. de corr. hell. viii. 378); also $\iota \iota \iota \iota \iota \iota \iota$ and $\iota \iota \iota \iota \iota \iota$ on one from Cephallenia (C.I.G. 1933).

The most conclusive argument for establishing the similarity in sound of $o\iota$ and ι and for refuting the assertion that in the days of Pericles $o\iota$ was pronounced oy is to be taken from Thucydides, bk. ii. ch. 54. Here, in speaking of the pestilence which ravaged Athens during the first years of the Peloponnesian war, he says that the Athenians began to recall an old oracle which had foretold a disaster of the kind in the words:

"Ηξει δωριακὸς πόλεμος καὶ λοιμὸς (οτ λιμὸς) ἄμ' αὐτῷ,

and after quoting the oracle, he goes on to say that the people questioned whether it was $\lambda\iota\mu\delta\varsigma$, a famine, or $\lambda\iota\iota\mu\delta\varsigma$, a pestilence, that had been foretold ($\dot{\epsilon}\gamma\dot{\epsilon}\nu\epsilon\tau\sigma$ $\mu\dot{\epsilon}\nu$ $\sigma\dot{\nu}\nu$ $\ddot{\epsilon}\rho\iota\varsigma$ $\tau\dot{\alpha}\dot{\varsigma}$ $\dot{\alpha}\nu\theta\rho\dot{\omega}$ - $\tau\dot{\alpha}\iota\varsigma$ $\mu\dot{\gamma}$ $\lambda\iota\iota\mu\dot{\delta}\nu$ $\dot{\omega}\nu\rho\dot{\alpha}\dot{\sigma}\theta\alpha\iota$ $\dot{\epsilon}\nu$ $\tau\dot{\varphi}$ $\ddot{\epsilon}\pi\epsilon\iota$ $\dot{\nu}\pi\dot{\delta}$ $\tau\dot{\omega}\nu$ $\pi a\lambda\alpha\iota\dot{\omega}\nu$, $\dot{\alpha}\lambda\lambda\dot{\alpha}$ $\lambda\iota\mu\dot{\delta}\nu$...). Now if $\lambda\iota\iota\mu\dot{\delta}\varsigma$ had at that time been pronounced "loymos" whilst $\lambda\iota\mu\dot{\delta}\varsigma$ was pronounced "leemos," the sounds of the words would have been so very different that there could not have been any doubt as to which had been said. It proves, consequently, that ι and $\iota\iota$ were either pronounced exactly alike, or that the difference was so very slight as to be almost imperceptible to the ear.

From Aristophanes we get further evidence against the broad pronunciation of $o\iota$ as $o\bar{\iota}$; in the Pax, 1. 932 one man jeers at another for exclaiming $o\iota$ and calls it an ${}^{\prime}I\omega\nu\iota\kappa\hat{o}\nu$ $\dot{\rho}\hat{\eta}\mu a$; and a few lines further down, ${}^{\prime}\tilde{\iota}\nu a$ $\lambda\acute{\epsilon}\gamma\omega\sigma'$ ${}^{\prime}I\omega\nu\iota\kappa\hat{\omega}\varsigma$ $o\acute{\epsilon}$.

That $o\iota$ was in the third century B.C. pronounced just the same as η and consequently as ι (because η at that time was probably = ι) we can infer from a passage in the $\Pi\epsilon\rho \iota$ $\epsilon\rho\mu\eta$ - $\nu\epsilon\iota$ as of Demetrius Phalereus: the words are $\dot{\epsilon}\nu$ $\tau\hat{\varphi}$ $o''\eta\nu$ $o\dot{\nu}$ $\mu\acute{o}\nu\nu$ $\delta\iota$ a ϕ $\dot{\epsilon}\rho\rho\nu\tau$ a $\tau\grave{a}$ $\gamma\rho\acute{a}\mu\mu$ a τ a, $\dot{a}\lambda\lambda\grave{a}$ κ a ι o' $\mathring{\eta}\chi o\iota$, o $\mu\grave{\epsilon}\nu$ $\delta a\sigma\dot{\nu}s$, o $\delta\grave{\epsilon}$ $\psi\iota\lambda\acute{o}s$, $o''\sigma\tau\epsilon$ $\pi o\lambda\dot{\nu}$ $\dot{a}\nu\acute{o}\mu o\iota a$ $\epsilon i'\nu a\iota$. From this it is clear, in the first place, that Demetrius speaks of only two syllables in $o''\eta\nu$ —and thus considers $o\iota$ a monophthong—and, in the second place, that, when drawing attention to the dissimilarity of the two syllables $o\iota$ - and $-\eta\nu$, he refers to it as being only one of orthography, not of pronunciation. This conclusion seems perfectly legitimate, because on any other supposition there would have been no necessity for his drawing attention to the fact at all.

Other evidence for its similarity to the i sound is derived from its Latin substitute often being i; thus the case-ending of the nom. plur. of masc. and fem. nouns of the second declension, is -oi in Greek and i in Latin, e.g. $\mathring{a}v\epsilon\mu\sigma i$ and animi; also the dat. plur.-ois is -is in Latin, $\mathring{a}v\epsilon\mu\sigma i$, animis. We further have such words as vinum fr. oivos, vicus fr. oikos, mihi fr. $\mu\sigma i$; also "mira" for $\mu\sigma i\rho a$ in Sidonius and "solicismus" in Arsenius.

On the other hand, $o\iota$ is generally transcribed by oe, e.g. oeconomus, oenopolus, oestrus, from olκονόμος, olνοπώλος, olστρος, and from this transcription some Erasmians, who think that oe was a real diphthong as late as the second century A.D. argue that $o\iota$ must have been a diphthong as long as oe was. However, the pronunciation of oe is unknown; it may perhaps have been an intermediate sound between o and e, something like the Germ. \ddot{o} ; all we know for certain about it is, that it was constantly interchanged with u. Thus we have "plura" and "ploera," "moenia" and "munia," "moenio" and "munio," "Punicus" and

"Poenicus," "uti" and "oeti" &c.; sometimes it is even interchanged with i, e.g. "loebertas" and "libertas." From this it follows that the transcription oe for ou does not prove anything about the pronunciation of ou.

The Erasmians adduce Crasis also as a means of proving that $o\iota = oy$. They argue that in a Crasis like $\mu o\dot{\upsilon} \sigma \tau \dot{\iota} \nu$ from $\mu o\iota \dot{\varepsilon} \sigma \tau \dot{\iota} \nu$ or if pronounced like oy could easily lose its i sound, and then the $o + \epsilon$ of $\dot{\epsilon} \sigma \tau \iota \nu$ would produce the sound ov; but is it not rather a pctitio principii to take it for granted that oy in certain cases becomes o? Is it not more probable that the form $\mu o\dot{\upsilon} \sigma \tau \dot{\iota} \nu$ tells us nothing about the pronunciation? in writing the middle one of the three vowels, ι , was naturally dropped, and the o and ϵ coming together were, as always, written ov.

Again, they argue that the Crasis $\theta o \iota \mu \acute{a}\tau \iota o \nu$ from $\tau \grave{o}$ $\iota \mu \acute{a}\tau \iota o \nu$ proves that the sound o y was pronounced as well as written. Can we not maintain with greater probability that the two vowels were kept in writing, but in speaking the short o of that unimportant word, the article, was scarcely, if at all, heard, so that the ι alone was distinctly heard and $\theta o \iota \mu \acute{a}\tau \iota o \nu$ was pronounced like $\theta \iota \mu \acute{a}\tau \iota o \nu$? On the other hand, if after contraction, the contraction itself was still pronounced thoy mation in such a way as to let both the o and ι sounds be distinctly heard, then no real Crasis had taken place, for the pronunciation, and the aspirate of the ι would hardly have affected the τ .

We may safely say that Crases at the best prove but very little: if $o\iota = oy$ why should $\partial \gamma \hat{\omega} \circ \partial \mu a\iota$ not produce "egoimai" instead of "egomai" ($\partial \gamma \hat{\omega} \mu a\iota$), since the sound $\partial \gamma$ is fuller and stronger than that of \bar{o} ?

We have still to take into consideration the question as to how ou was treated in prosody.

We shall find when so doing that there is no uniform treat-

ment; but that sometimes it is counted as a short syllable, whereas at others, and more frequently, it reckons as a long one.

Now it is true that its treatment in prosody as a long syllable is more frequent than its usage as a short one, but on the other hand if we could conceive a long diphthong of the full sound oy to have been accounted short in metre, we should have to subvert all our notions about long and short syllables. In Homer, however, ot is scanned as a short syllable not only when it is a flexional ending, or an unaccented word, but even when it is the accentuated and principal syllable of a word.

c.g. Odys, xiv. 224: 'Αλλά μοϊ αλεὶ νῆες ἐπήρετμοι φίλαι ησαν.

Odys. vii. 312 : Τοΐος ἐων, οἶός ἐσσι, τά τε φρονέων ἄτ' ἐγώ π ερ.

Π. xiii. 275 : Οἰδ' ἀρετὴν οἰός ἐσσι' τί σε χρὴ ταῦτα λέγεσθαι;
 Π. ii. 468 : Μυρίοι, ὅσσα τε φύλλα καὶ ἄνθεα γίγνεται ὥρη.

In the Attic tragedians and comedians, $o\iota$ is also constantly found short in the word $\tau o\iota o\hat{v}\tau o\varsigma$, and the phrase $o\hat{t}\acute{o}\varsigma \tau \epsilon$, and even in $\pi o\iota \epsilon\hat{\iota}\nu$ and one or two other words.

e.g. Soph. Oed. Tyr. 1428 : Οὐδεὶς οἶός τε πλην ἐμοῦ φέρειν βροτῶν.

ih. Oed. Tyr. 543: ol $\sigma\theta'$ $\dot{\omega}s$ π oίησον; $\dot{a}\nu\tau\dot{\iota}$ $\tau\dot{\omega}\nu$ εἰρημένων.

ib. Oed. Tyr. 140: κἄμ' αν τοιαύτη χειρὶ τιμωρεῖν θέλοι.

Whilst there would be considerable difficulty in treating or as a short syllable in scansion, if we gave it the broad pronun-

ciation oy there is not the same difficulty in making its quantity long if we pronounce it as our "e" in "be," that is like ι , to which its modern pronunciation is equivalent.

υι.

now pronounced like iota, that is like English "e" in "be." ν_{ℓ} was a so-called spurious diphthong, and only found before a vowel in the ordinary language, and it very soon was simplified to ν . In Attic there is hardly a trace of it left in the fourth century B.C. On the inscriptions of that century ν is always written for ν_{ℓ} , e.g. $\dot{\nu}$ òʻς for $\dot{\nu}$ iòʻς, ' $\Omega \rho \epsilon \ell \theta \nu a$ for ' $\Omega \rho \epsilon \ell \theta \nu a$, $\kappa a \tau \epsilon a \gamma \hat{\nu} a$ (for $-\gamma \nu \hat{\nu} a$), $\pi \epsilon \pi \lambda \epsilon \nu \kappa \nu a$ ς (for $-\kappa \nu \ell a$ ς).

On the Attic inscriptions of the fifth century vi still occurs, thus we have $vi\delta_S$ on the altar of Peisistratos (C.I.A. iv. 373 e), and $\dot{\epsilon}\sigma\epsilon\lambda\eta\lambda\nu\theta\nu\prime\alpha_S$ repeatedly in C.I.A. i. 273.

In Hellenistic Greek the writing $v\iota$ before a vowel was brought in again, and was thus reintroduced into the Attic authors. It also reappears occasionally on Attic inscriptions after the second century B.C., and in the time of the emperors it is much more frequent in words where it had originally stood than the simple v.

That it was a single sound even as early as Homer's time is proved by the fact that $u\iota$ - always counts as one syllable in his poems (and we may also notice in the word $ui\delta\varsigma$ its quantity is generally short).

cf. Il. vi. 130: Οὐδε γὰρ, οὐδὲ Δρύαντος υίὸς, κρατερὸς Αυκούργος.

ΙΙ. iv. 473: Ἐνθ' ἔβαλ' ἀνθεμίωνος υίον Τελαμώνιος Αἴας.

ΙΙ. vii. 47: "Εκτορ, υίὲ Πριάμοιο, Διὶ μῆτιν ἀτάλαντε.

In Attic poetry $vi\delta s$ is always written and scanned as $b\delta s$. The v and ι seem to have been contracted into long v. The v is also long on metrical inscriptions, as in C.I.A. iv. 373, 218.

 $v\iota$ is also interchanged with $\epsilon\iota$. Thus on the Heraclean tables we have $\epsilon\rho\rho\eta\gamma\epsilon\iota$ as seven times for $\epsilon\rho\rho\eta\gamma\nu\iota$ as; and also $\gamma\epsilon\gamma o\nu\nu\epsilon$ a for $\gamma\epsilon\gamma o\nu\nu\epsilon$ a on an Attic inscription of the second century B.C. (v. C.I.A. ii. 455, 16).

From all evidence, therefore, vi was equivalent to v in the Attic language of the fourth century, and hence its sound was very nearly, if not quite, the same as that of ι .

αυ, ευ.

These are now pronounced like English *af*, *ef*, except when they come before a vowel, a liquid or a medial and then they are pronounced like *av*, *ev*, respectively.

The Erasmians pronounce them like German au and eu respectively, for they maintain that in these diphthongs the v must have had its original u sound (like English oo in "boot") and cannot have been = German \ddot{u} or French u, as the modern pronunciation could not have developed itself from $a\ddot{u}$, $e\ddot{u}$, whereas it could have done so from au, eu. This explanation is very unsatisfactory, difficult to understand and only based on a hypothesis; but, on the other hand, we have definite proofs that av and ev early tended to become av and ev, as they are now.

The most important proof is, that there are many examples of F being written instead of v after a and ϵ . The greatest number of these are to be found on the Cretan inscriptions where F is constantly written instead of v or placed before or after it; e.g. $\dot{\omega}F\tau\dot{o}$ (= $a\dot{v}\tau\dot{o}$); $\dot{a}F\tau\dot{o}$; $\dot{a}Fv\tau\dot{a}v$; $\dot{\epsilon}F\epsilon\rho\gamma\epsilon\sigma\dot{\epsilon}a\varsigma$;

'A $F\lambda$ ω̂νι (= Αὐλῶνι); τιτων Γέσθω (v. Comparetti, Mus. Ital. ii. p. 131, pp. 162 ff.).

Again, on the Cyprian inscriptions F is regularly placed after v, as in Εὐ Fέλθοντος, Εὐ Fαγόρω, κατεσκεύ Fασε and other words (cf. Deecke, Cypr. Inschr.).

We have also several valuable single instances of this interchange of ν and F: thus on a Locrian inscription (cf. Röhl. 321, B. 15), there is one instance of $NaF\pi a\kappa \tau l\omega \nu$ among about twenty of $Na\nu\pi a\kappa \tau l\omega \nu$.

"Ερθετος (for εὔθετος) is found on a Corinthian tablet. Τερυκρος for Τεῦκρος occurs on a Lacedæmonian inscription (v. Rang. Antiq. hell. ii. 1). Kirchhoff (Stud. p. 86) mentions an old Naxian inscription which has ἀρυτο (for αὐτό), and a Coreyrean one of the seventh or sixth century B.C., on which ἀρυτάν and ἀριστεύροντα occur. Again, on an Elean inscription (C.I.G. No. 11) which Boeckh assigns to the period between Ol. 40 and Ol. 60, the name Εὐραίοις occurs, for which he proposes reading 'Hρραίοις, as he thinks the village Εὔα in the Peloponnese too insignificant to be the subject of this inscription, and also that the Υ which is rather squashed in at the end of a line may be a badly written P. The latter reason, however, is hardly supported by facts, as the letter is quite distinct and evidently meant to be a Υ.

We further have examples of the substitution of β for ν . A Corcyrean inscription (cf. C.I.G. 1563) has $\epsilon \dot{\nu} \delta o \mu \dot{\eta} \kappa o \nu \tau a$ (for $\dot{\epsilon} \beta \delta o \mu \dot{\eta} \kappa o \nu \tau a$), and a Boeotian one $\epsilon \dot{\nu} \delta o \mu o s$ for $\dot{\epsilon} \beta \delta o \mu o s$. On some of the papyri $\dot{\rho} a \dot{\nu} \delta o s$ and $\dot{\rho} a \dot{\nu} \tau o s$ are found for $\dot{\rho} \dot{\alpha} \beta \delta o s$. A later inscription of uncertain date B.C. gives us the form $\kappa a \tau \epsilon \sigma \kappa \dot{\epsilon} \beta a \sigma \epsilon$ (= $\kappa a \tau \epsilon \sigma \kappa \epsilon \dot{\nu} a \sigma \epsilon$).

This interchange of β and ν cannot be compared with the vocalisation of λ into ν (e.g. $\alpha \dot{\nu} \kappa \dot{\eta}$ for $\dot{\alpha} \lambda \kappa \dot{\eta}$), which is not only

found in Greek but also plays an important part in all the Romance languages.

Turning from substitution and interchange in the language itself to transcription in a foreign tongue, we find that the Latin av and ϵv were at first transcribed into Greek by aov and ϵov , e.g. ' $O\kappa\tau\acute{a}ovios$, $\Sigma\epsilon ov\~{\eta}\rho os$, but from the time of Hadrian onwards they are rendered by av and ϵv , e.g. ' $O\kappa\tau\acute{a}vios$ and $\Sigma\epsilon v\~{\eta}\rho os$. It is certain, therefore, that from the second century A.D. av and ϵv were = av and ϵv .

On an inscription from Dodona (v. Karapanos, xxxiv. 3) the name Evandros is transcribed sometimes by $E\ddot{\nu}a\nu\delta\rho\sigma$, at others by $E\ddot{\nu}\beta a\nu\delta\rho\sigma$.

Again, Ulfilas regularly transcribes av, ϵv by av, ϵv . Thus we have trustworthy evidence that, for at least sixteen or seventeen centuries av and ϵv have been pronounced as they are pronounced to-day, whereas we have none at all to support the assumption that they were ever pronounced like German av and ev (i.e. English ov and ov).

We have still to consider the questions of accent and prosody. As regards the accent, the argument brought against the pronunciation of these diphthongs as av and ev, is that if they had been so pronounced when accents were introduced, they would never have been marked with a circumflex. To this may be answered that av, ev are only signs, and by force of analogy they were accented in the same manner as ov or any other diphthong.

The question connected with prosody is a less simple one, but here also it does not seem a matter of very great difficulty to account satisfactorily for their quantity, on the assumption that their pronunciation was as that of English av, ev, or Greek $a\beta$, $e\beta$. The Erasmians argue that if pronounced as $a\beta$, $e\beta$

(av, ϵv) their quantity in prosody should always be short. But is this necessarily so? What is there to prevent us from saying that av, ϵv may $= \bar{a}\beta$, $\bar{\epsilon}\beta$ or $\check{a}\beta$, $\check{\epsilon}\beta$, as an a and ϵ may always be pronounced either long or short, and then the one vowel being long would account for their usual quantity in prosody.

Another consideration to be borne in mind is that av and ϵv are not always long, but are also scanned as short syllables, not only in Homer, but even occasionally in authors of the classical period.

e.g. Hom. Il. 20, 334 : "Ος σευ ἄμα κρείσσων, καὶ φίλτερος ἀθανάτοισι.

Hom. Il. xxiv. 595: Σοὶ δ' αὖ ἐγὼ καὶ τῶνδ' ἀποδάσσομαι, ὅσσ' ἐπέοικεν.

Also in Pindar, Pyth. ii. 52: πολυγαθέες ἀλλά νιν ὕβρις εἰς αὐάταν ὑπεράφανον.

Soph. Oed. Col. 143: $Z\epsilon\tilde{v}$ $\mathring{a}\lambda\epsilon\xi\hat{\eta}\tau o\rho$.

And in Pindar, Pyth. viii. 48: παλαισμάτεσσι γὰρ ἰχνεύων ματραδελφέους.

Where some read ἰχνέων or οἰχνέων metri gratiâ, but such an alteration is not necessary, if ευ be pronounced εν. In Aleman we also find αἴειρομέναι.

And it is to be noticed that in the scansion of such lines it is practically impossible to make the syllable sound short if av, and ϵv are pronounced as English ow and oy.

To those who deny that such an explanation is convincing we can at least reply that it seems less strange that αv , ϵv , pronounced αv , ϵv , should be generally long in metre than that

 $o\iota$, $a\iota$ pronounced like English oy and $\bar{\iota}$ should very frequently be short.

Again, the substitution of ω for $\alpha \nu$ which is sometimes found in ancient Doric, e.g. $\kappa \alpha \pi \pi \omega \tau \alpha s$ from $\kappa \alpha \tau \alpha \pi \alpha \omega \omega$, may be paralleled by the following forms from the modern popular language: $\omega \mu \rho \rho \phi s$ and $\delta \mu \rho \rho \phi s$ for $\epsilon \nu \mu \rho \rho \phi s$.

β .

 β now = Engl. v in "ever," or Germ. w in "ewig"; in other words, β in the Greek of the present day is a spirant.

The Erasmians contend that in ancient Greek this consonant was a mute, and they adduce four definite arguments against the possibility of its having been a spirant. These objections are as follows: firstly, Plato calls β a mute (cf. Theætetus, 403, B.); secondly, the Latin v is not transcribed by β until the second century A.D., but by ov; thirdly, the $\beta\hat{\eta}$, $\beta\hat{\eta}$, representing the sheep's cry in the line from Cratinus, cannot be read vee, vee, but the β must be hard; and fourthly, the Greek β is transcribed by the Latin b.

We next come to the assertion that the Latin v is not transcribed by β until the second century A.D. This is incorrect, as we have instances of its being so transcribed as early as the second century B.C.

On a Delphian inscription of 180 B.C. the names $\Lambda\iota\beta$ lov, $B\iota\beta$ lov are found for the Lat. Livius, Vivius.

Again, Polybius (fl. 165 B.C.), Dionysius of Halicarnassus (fl. 30 B.C.), and other writers of the two last centuries B.C., render Latin v by β , e.g. $B\acute{a}\rho\rho\omega\nu$ for Varro, $A\beta\epsilon\nu\tau\hat{\imath}\nu\rho\nu$ or $A\rho\nu\nu\hat{\imath}\nu\rho\nu$ for Aventinum. Plutarch almost always writes β for the Lat. v, e.g. $Pa\beta\acute{e}\nu\nu a$ for Ravenna, $\beta\hat{\eta}\lambda\rho\nu$ for velum, $\beta\hat{\eta}\lambda a\nu\rho\rho\nu$ for velabrum, $\Sigma\acute{e}\rho\beta\iota\rho$ for Servius, &c.

The argument founded on the $\beta\hat{\eta}$, $\beta\hat{\eta}$, of Cratinus is at the best very unreliable, as are all conclusions drawn from the cries of animals as interpreted by written characters—witness the different representations of the cries of the same animal in

different countries. Besides this, the distinction between the sound of the labial b and the spirant v is so small as to be of no practical account in these instances of onomatopeia, which are in any case only approximate renderings of the original sound.

Lastly, we have to consider the argument, that β is transcribed by the Latin b. To this we may reply, that even if β and b did not exactly correspond in sound, they held the same place in the two alphabets, and were naturally looked upon as equivalents, one for the other. And again, we cannot be sure how the Lat. b was pronounced, but we have evidence to show that if not actually = v, it was at least so soft as to be interchangeable with it; e.g. on ancient inscriptions we find serbus (= servus), bixit (= vixit), venemeritus (= benemeritus), amavile (= amabile), and on a document dating from the reign of Numa "Jobis" occurs for "Jovis."

This tendency of Latin b to become v is also shown by the fact that in the Romance languages it often has become v, $\epsilon.g$. Lat. habere, Fr. avoir, Ital. avere.

Another fact, which seems to indicate that β at a very early period was similar in sound to v, is that many words, which are common to both Greek and Latin, are written in Greek with a β , in Latin with a v, e.g. $\beta a i v \omega$ and venio, $\beta i \circ s$ and vivo, $\beta \rho \omega \sigma \kappa \omega$ and vorax, $\beta i \circ s \omega$ and violo, $\beta \circ i \circ s \omega$ and volo, and many others.

 γ .

 γ is now pronounced like the German "g" in "Tage"—a sound between g and h; before ϵ and ι it is like Germ. j or Engl. y.

Most Erasmians now admit that it became a spirant at a very early period; this is proved by its being frequently omitted when it comes between two vowels and also wrongly inserted to avoid a hiatus. We have numerous instances of this on the papyri, e.g. ὑγιγαίνις and ὑιαίνις for ὑγιαίνεις; κλαίγω for κλαίω; ὀλίος for ὀλίγος, &c. In the Bœotian ἰὼν stands for ἐγώ.

The form $\partial \gamma \dot{\eta} \gamma o \chi a$ is sometimes found for $\partial \gamma \dot{\eta} o \chi a$; thus it occurs twice on an Ægean inscription (v. C. I. G. 2139).

For this same omission of γ between two vowels we may compare the modern forms $\lambda \acute{\epsilon} \omega$ for $\lambda \acute{\epsilon} \gamma \omega$, $\phi \acute{a} \omega$ for $\phi \acute{a} \gamma \omega$, &c.

The jokes of the comedians at the time of the Peloponnesian war against Hyperbolos for his pronunciation of $\delta\lambda i\gamma \sigma_S$ as $\delta\lambda i\sigma_S$ also show that γ was already a spirant at that time. Again, the Doric use of γ to replace an initial \mathcal{F} clearly demonstrates that it was by nature a spirant, $\epsilon.g.$ in Doric we find $\gamma \sigma \hat{\imath} \nu \sigma_S = \sigma \hat{\imath} \nu \sigma_S$, $\gamma \hat{\imath} \alpha \delta \sigma_S = \hat{\jmath} \delta \sigma_S$, $\gamma \hat{\imath} \alpha \rho = \tilde{\imath} \alpha \rho$, $\gamma \hat{\imath} \gamma \hat{\imath} \sigma \rho = \tilde{\imath} \gamma \sigma_S$, &c.

δ.

δ is now pronounced like English th in then.

It evidently was a spirant in very early times in some dialects, as on some Elean inscriptions of the sixth century B.C., we find ζ and δ interchanged, e.g. $\zeta \acute{\epsilon}$, $\zeta \acute{\iota} \kappa a \iota a$, 'Ολυμπιάζων, $Z \acute{\iota}$ for $\delta \acute{\epsilon}$, $\delta \acute{\iota} \kappa a \iota a$, 'Ολυμπιάδων, $\Delta \iota \acute{\iota}$.

Similarly, in Ionic and Doric ζ and δ are often interchanged; thus $\Delta \epsilon \dot{\nu} s$ is Doric for $Z \dot{\epsilon} \nu s$: $\dot{a} \rho (\xi \eta \lambda \sigma s)$ and $\zeta o \rho \kappa \dot{a} s$ are Ionic for $\dot{a} \rho (\delta \eta \lambda \sigma s)$ and $\delta o \rho \kappa \dot{a} s$, cf. modern Greek $\mu a \zeta i'$ for $\dot{o} \mu a \delta \hat{\epsilon} i$. In Doric, again, $\sigma \delta$ is written for the Attic ζ , which shows that δ must have been pronounced soft, e.g. $\mu o \nu \sigma i \sigma \delta \omega = \Lambda t i c \mu o \nu \sigma i \zeta \omega$, $\mu \epsilon \lambda i' \sigma \delta \epsilon \tau a i = \Lambda t t i c \mu \epsilon \lambda i' \zeta \epsilon \tau a i$.

Plato's statement (v. Cratylus 418, c.) " $\nu \hat{\nu} \nu \delta \hat{\epsilon} \ d\nu \tau \hat{\iota} \ \tau o \hat{\nu} \delta \hat{\epsilon} \lambda \tau a$ $\xi \hat{\eta} \tau a \ \mu \epsilon \tau a \sigma \tau \rho \hat{\epsilon} \phi o \nu \sigma \iota \nu$ " compels us to believe that δ was pronounced like the spirant th even in Attica, as it would hardly have been interchanged with ξ , if it had been pronounced hard like our English d.

Another conclusive proof of the soft pronunciation of δ is derived from the fact that it is often inserted to give a softer or fuller sound to a word, $\partial \nu \acute{\epsilon} \rho o \varsigma$ becomes $\partial \nu \delta \rho \acute{o} \varsigma$; adverbs, as $\mu \acute{\iota} \gamma \delta a$ from $\mu \acute{\iota} \gamma a$, $\kappa \rho \acute{\iota} \beta \delta a$ from $\kappa \rho \acute{\iota} \phi a$.

Contracted forms like $\dot{\rho}\hat{a}o\nu$, $\dot{\rho}\hat{a}\sigma\tau\sigma\varsigma$ for $\dot{\rho}\acute{a}\delta\iota\sigma\nu$, $\dot{\rho}\acute{a}\delta\iota\sigma\tau\varsigma$ can also only be explained by assuming δ to have been pronounced as a spirant.

The name "mediæ," which was given to the letters β , γ , δ , by the grammarians, also seems to show that they were neither hard mutes, nor real aspirates, but that they partook of the nature of both, in other words, that they were spirants.

ζ.

This letter is pronounced quite soft by the Greeks, like the English z in zebra.

There has been much controversy about the nature and quality of it, as some maintained that it was a double letter composed of the two consonant-sounds ts or ds, others that it was formed from sd, and others, again, that it had always been a single letter pronounced as it is to-day.

The first notion is now exploded, for the second there is something to be said, but the third seems to be the correct one. That it had just the same soft sound in the ancient language as it has in the modern, seems to be sufficiently proved by the one fact that ζ is often written for σ before μ and γ , thus in old

Attic ζμικρός, ζμερδάλεος, ζμηγμα, ζμινύη were written for σμικρός, σμερδάλεος, σμηγμα, σμινύη (according to Æl. Dion.).

Sextus Empiricus (i. 169) says that $\Sigma \mu \nu \rho \nu a$ and $Z \mu \nu \rho \nu a$, $\sigma \mu i \lambda_{i} \rho \nu \nu$ and $\zeta \mu i \lambda_{i} \rho \nu \nu$ were pronounced exactly alike.

On inscriptions, too, ζ is frequently found for σ before μ and γ from the time of Alexander; e.g. on an Argive inscription of that period, $\Pi \epsilon \lambda a \zeta \gamma \iota \kappa \acute{o} \nu$ occurs for $\Pi \epsilon \lambda a \sigma \gamma \iota \kappa \acute{o} \nu$ (v. Le Bas, ii. 122).

In the Ionian dialect δ is changed into ζ while in Bœotic ζ is changed into δ , e.g. $\Delta \epsilon \dot{\nu} s$, $\mu \dot{\alpha} \delta \delta a$ for $Z \epsilon \dot{\nu} s$, $\mu \dot{\alpha} \zeta a$: both these interchanges are evidence that ζ was a single soft letter.

On the other hand, there are several arguments for its having been a double letter, at least in some dialects.

One is that in Doric and Æolic $\sigma\delta$ is written for ζ , e.g. $\Sigma\delta\epsilon\dot{\nu}\varsigma$, $\mu\nu\nu\sigma'\ell\sigma\delta\omega$, $\psi\iota\theta\nu\rho'\ell\sigma\delta\omega$ for $Z\epsilon\dot{\nu}\varsigma$, $\mu\nu\nu\sigma'\xi\omega$, $\psi\iota\theta\nu\rho'\xi\omega$; and on Beeotian and Thessalian inscriptions the same words are spelt indifferently with $\sigma\delta$ or ξ , e.g. $\Theta\epsilon\dot{\nu}\sigma\delta\nu\sigma\nu$ and $\Theta\epsilon\nu\xi\dot{\nu}\tau\alpha$.

Even in Attic we have instances where ζ seems to be composed of $\sigma\delta$, as in $\beta \dot{\nu} \zeta \eta \nu = \beta \dot{\nu} \sigma \delta \eta \nu$, and $A\theta \dot{\gamma} \nu a \zeta \epsilon$, $\theta \dot{\nu} \rho a \zeta \epsilon = A\theta \dot{\gamma} \nu a \sigma - \delta \epsilon$, but this may perhaps be explained by saying that the Attic substituted the easier single sound ζ for the more difficult double consonant-sound $\sigma\delta$, as $\zeta (=z)$ is very similar in sound to $\sigma\delta (=sth)$ only easier to pronounce.

Again, the grammarians Dionysius of Halicarnassus, Dionysius Thrax, Sextus Empiricus, and others say it is composed of σ and δ. (cf. Sext. Emp. p. 622: διότι τὸ ζ ἐκ τοῦ σ καὶ δ δοκεῖ συγκεῖσθαι.)

The chief argument, however, for ζ being a double letter rests on the fact that in metre it causes the lengthening of the preceding vowel; the only exceptions to this rule are the two names $Z\acute{\epsilon}\lambda\epsilon\iota\alpha$ and $Z\acute{a}\kappa\nu\nu\theta$ os, which occur in Homer, and could

not be brought into the hexameter verse, if the final vowel of the preceding word were to be lengthened.

c.g. Il. ii. 824:

Οί δὲ Ζέλειαν ἔναιον ὑπαὶ πόδα νείατον Ίδης.

And there is one line in the Anthology where this rule is transgressed,

βαπτίζεται δ' υπνφ γείτονι του θανάτου.

 θ .

 θ is pronounced like English "th" in "thin" both by the Greeks themselves and in England, but in Germany it is pronounced like τ , or "t," though there is apparently no foundation for so pronouncing it.

Its character as aspirate is sufficiently attested by the circumstance that the Æolians substituted another aspirate, ϕ , for it, as $\phi \dot{\eta} \rho a$, $\phi \lambda \dot{\alpha} \omega$, $\phi \lambda \dot{\iota} \beta \omega$ for $\theta \dot{\eta} \rho$, $\theta \dot{\alpha} \omega$, $\theta \lambda \dot{\iota} \beta \omega$.

Again, unless θ were pronounced as an aspirate, there would be no sense in the ridicule Aristophanes bestows upon a Seythian in the *Thesmophoriazousae* for saying κάτησον, τυγάτριον, κατεύδει, instead of κάθησον, θυγάτριον, καθεύδει (v. ll. 1183 ff.).

T AND T.

 π after μ is pronounced by the Greeks like the English "b," and τ after ν like the English "d": similarly, β after μ , and δ after ν are pronounced hard.

The Erasmians say that such a pronunciation of $\mu\pi$ and $\nu\tau$ cannot possibly have existed in ancient Greek, as it would then have been impossible to draw a distinction between words like

ἐντός and ἔνδον, ἀνάφαντον and ἀναφανδόν. The simple answer to this objection is, that they were easily distinguished by their accent. The Greeks pronounce, and, it is to be presumed, always have pronounced, the accented syllable of a word very strongly, whilst the unaccented ones are comparatively little heard, hence there would be no difficulty in distinguishing words that were similarly pronounced but differently accented.

In support of the argument that the same modification of sound took place in the ancient language, we may compare the words $\dot{\epsilon}\nu\tau\epsilon\lambda\epsilon\chi\dot{\epsilon}\iota a$ and $\dot{\epsilon}\nu\delta\epsilon\lambda\epsilon\chi\dot{\eta}\varsigma$ in Aristotle, and the double forms ' $A\mu\pi\rho\alpha\kappa\dot{\iota}a$ and ' $A\mu\beta\rho\alpha\kappa\dot{\iota}a$, $\dot{a}\mu\pi\lambda\alpha\kappa\epsilon\hat{\iota}\nu$ and $\dot{a}\mu\beta\lambda\alpha\kappa\epsilon\hat{\iota}\nu$.

The name "Stamboul" also, which is a corruption of " $\epsilon i s \tau \dot{\eta} \nu$ $\pi \delta \lambda \iota \nu$," or rather $\dot{\epsilon} \iota s \tau \dot{\eta} \mu \pi \delta \lambda \iota \nu$, is another illustration of π after μ , having been pronounced as "b."

σ.

 σ has the same sound as our hard hissing "s," and it is only in Germany that it is still pronounced as a soft "s"; Blass, however, admits that there is no reason for not accepting the traditional pronunciation.

It must be pronounced soft before a liquid or a medial, and that this was the same in the ancient language is shown by ζ often being written for it before β , μ , γ , or δ , e.g., $Z\mu\nu\rho\nu$ and $\Sigma\mu\nu\rho\nu$, $\zeta\beta\epsilon\nu\nu\nu\mu$ and $\sigma\beta\epsilon\nu\nu\nu\mu$.

That it was always pronounced hard is confirmed by the fact that on old Attic and other inscriptions $\sigma\sigma$ is sometimes found for σ , and, vice versâ, σ for $\sigma\sigma$; thus we have $\mathring{a}\rho\iota\sigma\sigma\tau a = \mathring{a}\rho\iota\sigma\tau a$ (C.I.A. i. 920); $\pi \mathring{a}\sigma\sigma\eta s$ for $\pi \mathring{a}\sigma\eta s$ on an Olympian inscription; $\Lambda \acute{e}\sigma\sigma\beta o\nu = \Lambda \acute{e}\sigma\beta o\nu$ (C.I.A. ii. 52, e); and $\pi \rho \acute{a}\sigma\omega\nu$ for $\pi \rho \acute{a}\sigma\sigma\omega\nu$ on an Opuntian inscription of uncertain date B.C.

The Aspirate.

The chief dispute with reference to the rough breathing turns on the fact that its pronunciation is now entirely neglected; and this is used as an additional proof that the present pronunciation of Greek differs essentially from that of the classical period. There are, however, several points to be considered relative to its usage in antiquity, which must considerably modify any conclusions that may have been formed as to the distinction between its ancient and modern pronunciation.

In the first place, we have several facts which serve to show that it was probably not sounded even in the fifth and fourth centuries B.C., or that, if sounded at all, its pronunciation was very fluctuating and slight. The most convincing proof of this is the fact that when in 403 B.C. H, which till then had served as the sign of the rough breathing, was introduced into the Attic alphabet as a long vowel, no new sign was added to mark the rough breathing. The signs F and H (which afterwards became 'and') were first used, as it seems, by Aristophanes of Byzantium who lived c. 200 B.C.

Attic inscriptions, again, of the fifth century B.C. often omit H, thus on the one in C.I.A. iv. 53, a, it is only retained in the word $i\epsilon\rho\delta\nu$ and omitted in all other words where it should have been written.

So, too, the long inscription (v. C.I.A. 324) which contains the accounts for the building of the Erechtheion and dates from the year 404 BC., shows us more than one hundred cases where the H (spiritus asper) is inserted in the wrong place, e.g. έπὶ, οἰκοῦν, έν, Εὕδοξος, ἐργασαμένψ close to ἐργασαμένψ, &c., &c.

Blass says that this inscription is evidently the work of a foreigner—but there seems to be no sufficient ground for this assertion.

On the Heraclean tables the two writings $i\sigma s$ and $i\sigma s$ occur. From this evidence it is clear, not indeed that the rough breathing was never sounded, but that it was certainly not invariably sounded in the fifth and fourth centuries B.C.

Secondly, we must bear in mind that neither the Ionic nor the Æolic dialect had the rough breathing, nor is it found in the Gortynian and Cyprian inscriptions.

The weakness of the rough breathing is further demonstrated by the existence of kindred words like $\eta\mu\epsilon\rho a$ and $\eta\mu\alpha\rho$; $\dot{\eta}\dot{\omega}_{S}$ and $\dot{\epsilon}\omega_{S}$; olos and ϵl_{S} , and by derivatives like $\Gamma\lambda\alpha\dot{\nu}\kappa\iota\pi\pi\sigma_{S}$ from $\tilde{\iota}\pi\pi\sigma_{S}$.

With reference to the aspiration of the tenues in Attic, Blass is of opinion that this proves that the breathing must still have been sounded, though perhaps very weakly. This, however, does not necessarily follow, as in modern Greek the rough breathing still causes the preceding tenuis to be changed into its corresponding aspirate, although this breathing has, as even the Erasmians admit, been mute for nearly 2000 years; the Greeks of the present day always say $\mathring{a}\varphi'$ $\mathring{\eta}\mu\mathring{\omega}\nu$, $\kappa a\theta'$ $\mathring{\eta}\mu\epsilon\rho i\varsigma$, although they never sound the rough breathing.

In some dialects it may have been sounded up to a later date, as it is regularly represented in Latin by h; but even in Latin the h was often misplaced from the first century B.C.

Finally, the grammarians, who write about the $\eta_{\chi os}$ $\delta a\sigma \dot{vs}$, nearly all lived at a time when it is almost certain that the rough breathing was no longer sounded.

A passage from Demetrius Phalereus (fl. 325 B.C.) has sometimes been adduced to prove that the rough breathing was still sounded in his time, but on careful examination it seems rather to prove just the contrary; the passage is the following: $E\nu \tau \hat{\varphi}$ oinv où μόνον διαφέροντα τὰ γράμματά ἐστιν, ἀλλὰ καὶ οἱ ἢχοι, ὁ μὲν δασὺς, ὁ δὲ ψιλὸς, ὅστε πολὺ ἀνόμοια εἶναι. This, the Erasmians say, proves that the rough breathing was still sounded. But, on the contrary, if it had still been sounded, why should he call attention to the fact, that the one syllable of the word had a rough breathing and the other a smooth one? He is evidently speaking of the orthography, not of the pronunciation, and wishes to draw attention to the fact that in writing the first syllable should have the rough breathing.

As an instance of continuity in modification of sounds we find that in modern Greek, the final ν of the article, or of any other short unimportant word, is changed into μ , if the following word

commences with an μ or π , and we have numerous proofs from inscriptions that this same change took place in classical times. Thus on an Attic inscription of c. 419 B.C. (cf. C.I.G. 76) we find $\dot{\epsilon}\dot{a}\mu$ $\pi o \nu$, $\ddot{o}\tau a \mu$ $\pi \epsilon \rho$, $\dot{\epsilon}\mu$ $\pi \dot{o}\lambda \epsilon \iota$ and many similar examples,—on others, $\tau \hat{\omega} \mu$ $\mu \iota \sigma \theta \dot{\omega} \sigma \epsilon \omega \nu$ and $\ddot{o}\tau a \mu$ $\pi \dot{\epsilon} \mu \pi \eta$ (cf. C.I.G. 82 and 87), and on the Gortynian inscription, fifth century B.C., $\tau \hat{\omega} \mu$ $\pi o \lambda \iota a \tau \hat{a} \nu$.

We have endeavoured to show, within narrow limits, that the present pronunciation used by the Greeks is no novelty, and is improperly called "modern," since tradition and philological research show that in most particulars it reaches far back into the most flourishing times of Hellas, and is even traceable in the Epics of Homer. There has been an unbroken tradition for nearly two thousand years in favour of the present pronunciation, and this we have endeavoured to show rests upon no mere hypotheses. Tradition itself, as seen in the living language of to-day, is a fact that pleads powerfully for the heirloom that has been handed down to the Greek nation from its ancestors, for perhaps nothing clings more tenaciously to a nation than the pronunciation of its language.

The Erasmians themselves admit, that the present pronunciation is much the same as that which was in use at the commencement of the Christian era; and with regard to the continuity of the Greek language we may quote Professor Jebb, *Modern Greece*, p. 54: "Old and new Greece are bound together by language. Latin passing into Romance languages was more or less disintegrated. Greek was for centuries rude and ungrammatical, but it was always itself, and itself alone. . . . In the organic matters of structure and syntax Greek has never made a compromise with any other language. . . . During the

last eighty years the Greek language has been returning more and more to the old classical type. . . . The chief difference now remaining between old and modern Greek is one which exists between old and modern languages generally—the old is synthetic, the modern analytic. Thus it has been the unique destiny of the Greek language to have had, from prehistoric times down to our own, an unbroken life. Not one link is wanting in this chain which binds the new Greece to the old." The opinion of so distinguished a scholar both in ancient and modern Greek is most weighty.

Similar testimony is borne by Mr. E. A. Freeman, Fortnightly Review, February 1st, 1879: "There is something more in the Greek tongue, something more abiding, something which more nearly touches the general history of mankind, than is to be found in that view of it which looks on it as dead, ancient, classical, cut off from modern interests of every kind. I claim for the Greek its place on the exactly opposite ground, because it is not dead but living—because, if it is ancient, it is mediæval and modern no less."

Well could Professor A. P. Pharmacopoulos, teacher of Modern Greek in the University of Naples, boast in his inaugural lecture delivered December 18th, 1885: "La nostra lingua non è la figlia della lingua antica, ma la lingua antica stessa sotto una differente forma, non nelle parole, nei verbi e nelle loro declinazioni, ma nello stile, anzi oggidi usiamo frasi che si incontrano negli scrittori antichi più classici. La lingua moderna non è che l'antica stessa."

We, however, for a long time have been applying to Greek the rules of pronunciation of another language, namely the Latin, and the vocalization of our own tongue, until we have lost all analogy with the sound and rhythm of the Greek language as it was and is spoken. We have tried to mummify Greek whilst it is still alive, tying it up with the bandages of a dead language, so that in our hands it has almost ceased to breathe, and can only express itself in such painful sounds as were never heard, and cannot by any means be understood, in its native country. It is not surprising that Greeks should be astonished at such conduct, and that they cannot understand any one having the courage so to maltreat a language, as to render it perfectly unrecognizable to the inhabitants of the country where it has always been spoken, by our "barbarous habit of murdering the classical tongue by Latin accentuation and English vocalization," as Professor Blackie says. And all this is done for a theory, or a mere opinion, repeated from mouth to mouth often without much thought, or with none at all, "That the ancient Greeks could not have pronounced as the moderns do." We may ask why not? The answer to this question has never been conclusive, because, resting simply on hypotheses and assertions, it never can be satisfactory; indeed, it is becoming less and less so every day, in proportion as modern Greece and its literature and language are becoming better known in Western Europe.

The question of teaching Greek with the traditional pronunciation is now being seriously taken up by the Philhellenic Society of Amsterdam, and by several professors in Germany, France, and Italy, all of whom maintain, that by teaching the language in the same way as we teach other modern languages, we shall obtain much better results in shorter time than by the present system of teaching Greek.

To those who take an interest in the maintenance of the study of the classical language, the question of Greek pronunciation and the method of teaching the language is most important, since the opponents of the study of Greek in our schools and universities are daily on the increase, and the number of students becoming less. Most students of mathematics and of natural science, professors and pupils alike, would banish Greek from the necessary curriculum of studies at our universities, and have already to some extent succeeded. We have already got so far that French or German may in some examinations be substituted for Greek, and in a short time, if we continue the present system of teaching the language, Greek will become an optional subject, except perhaps in the case of theological students. No wonder that the opposition exists, and that many argue that the study of Greek entails eight or nine years of useless labour, which in this country is almost true. But the opposition can hardly be said to be against the Greek language itself-which most of the opponents do not, or only indifferently, understand-but against the waste of time and the poor results of so many years of often disagreeable labour—a labour of Sisyphus, as Constantine Reyer of Trieste calls it—both for professors and pupils. We think the only way to preserve the study of Greek is to render its acquisition more agreeable and rapid, and the results more satisfactory, by introducing a radical change in the method of teaching it.

To bring about a thorough reform, it must be learned and taught as a living tongue, and as much as possible spoken, and be studied in its entirety, beginning with the modern language, in which there is sufficient well-written literature, increasing daily, in the works of S. Tricoupis, Rangabé, Bikelos, Lambros, Vlachos, and many others. When the student has fairly mastered the modern style, which he would do as easily as he does French or German, he should go backward, as it were,

to the ancient authors, thus becoming gradually acquainted with the more archaic grammatical constructions and forms of expression, which will present little or no difficulty, but, on the contrary, prove an interesting study. This method of studying is the most useful and agreeable way of learning the language, and enables the student to understand and appreciate the classical writers a thousandfold better than by the present system.

This is the true way of learning the ancient literature of any living tongue; we do not begin to teach or to study French with the Chanson de Roland, nor German with Gudrun. We know that many will be ready to say, that though this way may apply very well to other languages, yet it does not to Greek, and the innovation may seem too great or too bold. We, however, think that it would apply better to Greek than to most other languages of Europe that we know of, because there is very much less difference between the Greek of to-day and that of classical times, than between mediæval French, German, and English, and these languages as they are spoken and written at the present time. The Roman de la Rose, Gudrun, Nibelungenlied, and Chaucer differ much more from the languages of which they are the early representatives, than Homer does from the language now spoken and written in Athens. Of Greek we may truly say: "La lingua moderna non è che l'antica stessa." The grammar, accidence, and syntax, remains practically the same as in classical times.

Indeed, the grammars used in the Gymnasia of Greece are similar to those used in the Gymnasia of Germany and the public schools of England. Many of them are simply translations from the German. Therefore to study Greek as a living language would require no change of grammar; the slight

differences in the future and infinitive of the verbs could easily be explained viva voce, as they present no difficulty. principal difference is in the style of the written language, which is simpler than the classical, to which it thus forms an easy introduction. But even with regard to style, we should consider that the classical works which have survived the wreck of ages, do not give us the more popular written and spoken language of their times. It is to be remembered that already in the fourth century B.C., but especially in the Alexandrian period, many provincial peculiarities were being introduced into the Attic dialect, and from this combination arose in the third century B.C. the common dialect, ή κοινή διάλεκτος, in which different degrees of development are to be noticed, according to the time in which the writers lived, as in the writings of Polybius, Diodorus, Pausanias, and Dio Cassius. The present language is nothing else than a somewhat modernized form of the κοινή διάλεκτος of antiquity, and it is with this that we propose the study of Greek should begin. We venture to think that this method would render the study of the language much easier, and make it much more interesting to the pupil, who would thus cease to look with awe upon a language which has hitherto been considered dead and fraught with difficulties. Life and interest would be given to the study, more especially if the language were not only read but spoken. Nearly all the words, at least the roots and simple words, with many expressions of the present spoken and written language, would be constantly met with in the after-study of the classical authors, thus removing difficulties and giving a zest to the study.

By this system the difficulty with regard to accentuation would be almost entirely removed, because, from the very commencement, the pupil would be taught to accentuate the words aright by reading aloud with the proper pronunciation, which necessarily includes accentuation, and by which words of similar orthography, but differing in meaning according to the accentuation, which occur in Greek as in English, are readily distinguished, e.g. $\check{a}\gamma\omega\nu$, leading; $\dot{a}\gamma\acute{\omega}\nu$, a contest. A wrong accent in pronunciation would soon be as easily distinguished in Greek as in English, and if the student had any doubt he would only have to pronounce the word aloud to remove the difficulty.

At present the great majority of English students of Greek are quite at a loss about the accentuation. They learn the rules, but the practice remains most difficult, and to the majority an unsolved enigma to the end. No wonder that this should be so, for the majority of words are differentlyaccentuated in the English pronunciation from what they are in the Greek. A curious example of this is found in an edition of some of the Greek tragedies, some years ago, by T. W. C. Edwards, in which he gives an ordo of the words with the English accentuation, that the pupil should read the text What should we think of some German author properly! being treated in this way to suit some English theory of pronouncing that language? If it would be absurd to do this with German, why should we do so with Greek? It is true we do not accent Greek words in writing according to the English pronunciation, but we make it even more difficult for our students, for we insist upon their accentuating their written Greek as the Greeks do, and on their reading it with another, and often totally different accentuation. If it were not a fact, we could scarcely believe such a thing credible.

The difficulty of introducing the study of Greek as a living

language with the proper pronunciation would not be great as regards the pupils, for they would learn to pronounce Greek more easily than they do French, but it would be with the majority of teachers, who from habit and prejudice would be unwilling to adopt a new method of teaching the language and a new pronunciation. Still there might be found some, and we trust there soon will be some, who will appreciate the many advantages of teaching the most beautiful language of antiquity as a living tongue. A teacher could in a few hours learn the pronunciation, and by reading a few modern books, and learning good dialogues, be enabled in a short time to make some progress in conversation.

To introduce this system fully and to make it a success, there should be an educated Greek attached to each of our public schools, to teach the pronunciation, to hear the pupils read aloud, and to converse with them. The critical elucidation of the language should remain, as at present, in the hands of the regular teachers, using the proper pronunciation.

We venture to think that such a reform in the teaching of Greek would much facilitate its acquisition, and render its study much more attractive to pupils, and add considerably to its utility; for those pupils who might never acquire any facility in reading the writings of the ancient dramatists, might still be able to make out the meaning of most of what they might find in a Greek newspaper or modern book, and if business or pleasure should take them to Greece or the Levant, they could with little difficulty make themselves understood to the Greeks with whom they came in contact. It might not be classical Greek altogether that they used, but we may say with Ampère, "En tout cas, il vaut mieux de parler le Gree comme un mendiant d'Athènes que comme un helléniste de Rotterdam."

With regard to learning Greek in this manner Professor Blackie says, "I undertake to prove that by learning Greek in the natural and true way as a living language, by a direct appeal to the ear and response by the tongue, thinking and speaking in Greek from the first lesson, a greater familiarity with that noble language will be acquired in five months than is done now by the assiduous labour of as many years. Nature is always right; schoolmasters and scholars are sometimes wrong." We hope that the learned and genial professor will not remain, what he has been for many years, with regard to this question, a "vox clamantis in deserto."

We may not have satisfied the critical demands, or removed all the difficulties, or even any from the minds of the advocates of the old system, but we trust we have shown sufficiently, that we have some basis for the view we have taken of Greek pronunciation. In conclusion we say with Cicero, "Ex filio locutum esse patrem judico, sic majores."

THE END.



